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 NEWS  4  May 12   Polymer links for the POLYLINK command completed in REGISTRY
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                   SDIs in CAplus
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                   Patent Office Classifications
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                                                         ENTRY    SESSION
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FILE LAST UPDATED: 18 Aug 2004  (20040818/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> coplymer
             4 COPLYMER
             8 COPLYMERS
L1          12 COPLYMER
                (COPLYMER OR COPLYMERS)

=> copolymer
        532794 COPOLYMER
        176025 COPOLYMERS
L2      579333 COPOLYMER
                (COPOLYMER OR COPOLYMERS)

=> reovirus and L2
          1840 REOVIRUS
           307 REOVIRUSES
          1904 REOVIRUS
                 (REOVIRUS OR REOVIRUSES)
L3           9 REOVIRUS AND L2

=> DIS L3 1- IBIB IABS
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L3   ANSWER 1 OF 9  CAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:         1997:315336  CAPLUS
DOCUMENT NUMBER:          126:290390
TITLE:                    Method of adsorbing viruses from fluid compositions
INVENTOR(S):              Krupey, John; Smith, Allen D.; Arnold, Edward;
                          Donnelly, Robert
PATENT ASSIGNEE(S):       Ligochem, Inc., USA; Krupey, John; Smith, Allen D.;
                          Arnold, Edward; Donnelly, Robert
```

SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9711160	A1	19970327	WO 1996-US15500	19960917
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
CA 2185331	AA	19950921	CA 1994-2185331	19940314
AU 9465193	A1	19951003	AU 1994-65193	19940314
AU 690111	B2	19980423		
EP 750644	A1	19970102	EP 1994-912782	19940314
EP 750644	B1	19980610		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
AT 167197	E	19980615	AT 1994-912782	19940314
US 5658779	A	19970819	US 1995-532118	19950922
CA 2232622	AA	19970327	CA 1996-2232622	19960917
AU 9673763	A1	19970409	AU 1996-73763	19960917
EP 857204	A1	19980812	EP 1996-936013	19960917
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11511335	T2	19991005	JP 1996-512972	19960917

PRIORITY APPLN. INFO.:			
US 1995-532118	A	19950922
US 1992-854302	A2	19920320
US 1994-207274	A2	19940307
EP 1994-912782	A	19940314
WO 1994-US2742		19940314
WO 1996-US15500	W	19960917

ABSTRACT:
A method is disclosed for adsorbing viruses, which retain their viability and infectivity, from a solution comprising a biol. sample. The method comprises adjusting the pH of said solution to pH 6.0-8.0; adding an effective amount of a water-insol. crosslinked polycarboxylic acid polymer ("WCPP") into said solution in a volume:volume ratio of WCPP to solution of 100:1 to 1:10,000 to form a WCPP-solution
mixture; incubating said WCPP-solution mixture for a time sufficient to immobilize said viruses on said WCPP forming a WCPP-virus matrix; and separating said matrix from said solution This novel method is suitable for removing, purifying, recovering, and analyzing viable viruses as well as viral components such as viral proteins and nucleic acids.

L3 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:744267 CAPLUS
DOCUMENT NUMBER: 126:37056
TITLE: Proteinoid drug carriers and methods for preparation and use thereof
INVENTOR(S): Milstein, Sam J.; Kantor, Martin L.
PATENT ASSIGNEE(S): Emisphere Technologies, Inc., USA
SOURCE: U.S., 53 pp., Cont.-in-part of U.S. 5,443,841.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 30
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5578323	A	19961126	US 1993-76803	19930614
US 5443841	A	19950822	US 1992-920346	19920727
WO 9325583	A2	19931223	WO 1993-US5723	19930615
W: AT, AU, BG, BR, CA, CH, DE, DK, ES, FI, GB, HU, JP, LU, MG, MN, NL, NO, PL, RO, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IE, IT, LU, MC, NL, PT, SE				
AU 9346356	A1	19940104	AU 1993-46356	19930615
EP 642532	A1	19950315	EP 1993-916542	19930615
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 07508004	T2	19950907	JP 1993-501793	19930615
HU 70211	A2	19950928	HU 1994-3589	19930615
BR 9306678	A	19981208	BR 1993-6678	19930615
US 5447728	A	19950905	US 1993-168776	19931216
CA 2164957	AA	19941222	CA 1994-2164957	19940614
WO 9428878	A1	19941222	WO 1994-US6735	19940614
W: AT, AU, BB, BG, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9471082	A1	19950103	AU 1994-71082	19940614
AU 697044	B2	19980924		
EP 706375	A1	19960417	EP 1994-920205	19940614
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 08511545	T2	19961203	JP 1994-502192	19940614
US 5714167	A	19980203	US 1994-328932	19941025
NO 9404852	A	19950210	NO 1994-4852	19941214
FI 9405912	A	19950215	FI 1994-5912	19941215
US 5811127	A	19980922	US 1996-635921	19960424
US 5840340	A	19981124	US 1996-705808	19960830
US 6099856	A	20000808	US 1996-763183	19961210
US 6221367	B1	20010424	US 1997-939939	19970929
US 6071538	A	20000606	US 1997-940056	19970930
US 6245359	B1	20010612	US 1997-941616	19970930
US 6348207	B1	20020219	US 1997-941609	19970930
US 6413550	B1	20020702	US 1998-197899	19981123
AU 771024	B2	20040311	AU 2000-72261	20001214
AU 771434	B2	20040325	AU 2000-72260	20001214
US 2001039258	A1	20011108	US 2001-760307	20010111
US 2003133953	A1	20030717	US 2002-255237	20020925

PRIORITY APPLN. INFO.:

US 1992-898909	B2	19920615
US 1992-920346	A2	19920727
US 1993-51019	A2	19930422
US 1993-76803	A	19930614
WO 1993-US5723	A	19930615
US 1993-143571	B2	19931026
US 1993-168776	A2	19931216
US 1994-205511	A2	19940302
US 1994-231622	A2	19940422
US 1994-231623	A2	19940422
WO 1994-US4560	A2	19940422
WO 1994-US6735	W	19940614
US 1994-315200	A2	19940929
US 1994-316404	A2	19940930
WO 1994-US12333	W	19941024
US 1994-328932	A2	19941025
US 1996-17902P	P	19960329
US 1996-705808	A1	19960830
US 1996-763183	A2	19961210
US 1997-820694	A2	19970318

US 1997-939939	A1	19970929
AU 1998-62756	A3	19980206
US 1999-420200	A1	19991018

ABSTRACT:
Improved proteinoid carriers and methods for their preparation and use as oral delivery systems for pharmaceutical agents are described. The proteinoid carriers are soluble within selected pH ranges within the gastrointestinal tract and display enhanced stability towards at least one of photolysis or decomposition over time. The proteinoid carriers are prepared from proteinoids having between 2 and 20 amino acids and having a mol. weight of between about 250 and 2400 daltons. Thus, a base-soluble proteinoid can be prepared by a thermal condensation reaction which involves heating 750 mL of tetramethylene sulfone to 190°C in an inert nitrogen atmospheric in a 4-L flask with stirring. Then 294 g of glutamic acid is added and the mixture is heated for on-half h, whereupon 266 g of aspartic acid is added and the mixture heated as rapidly as possible to 190° and held there for 15 min. Then 362 g of tyrosine is added and the mixture heated at 190° for 3 h, whereupon 330 g of phenylalanine is added and the mixture heated at 190° for 1.5 h. The hot melt is then poured into 5 L of water with vigorous stirring. After stirring for about 1 h, the mixture is filtered and the filtrate discarded. The cake is again reslurried in 5 L of water. The pH of the slurry at 25° is adjusted to 8 using 40% NaOH solution The mixture is filtered and the cake washed with a small amount of water. The washes and filtrate are combined and evaporated to dryness in vacuo to give Glu/Asp/Tyr/Phe proteinoid. Encapsulation of murine IgG monoclonal antibody 9BG5 (specific for the sigma-1 gene product (hemagglutinin HA3) of ***reovirus*** type 3) is shown. Proteinoid encapsulation of heparin, calcitonin, factor IX, α-interferon, influenza virus antigen M1, and erythropoietin is also shown and the disposition of these prepns. in rats is evaluated.

L3 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	1991:421650 CAPLUS
DOCUMENT NUMBER:	115:21650
TITLE:	Sulfated polymers are potent and selective inhibitors of various enveloped viruses, including herpes simplex virus, cytomegalovirus, vesicular stomatitis virus, respiratory syncytial virus, and toga-, arena- and retroviruses
AUTHOR(S):	Schols, D.; De Clercq, E.; Balzarini, J.; Baba, M.; Witvrouw, M.; Hosoya, M.; Andrei, G.; Snoeck, R.; Neyts, J.; et al.
CORPORATE SOURCE:	Rega Inst. Med. Res., Kathol. Univ. Leuven, Louvain, B-3000, Belg.
SOURCE:	Antiviral Chemistry & Chemotherapy (1990), 1(4), 233-40 CODEN: ACCHEH; ISSN: 0956-3202
DOCUMENT TYPE:	Journal
LANGUAGE:	English

ABSTRACT:
Sulfated polymers, such as polyvinylalc. sulfate and its **copolymer** with acrylic acid, are potent inhibitors for herpes simplex virus, human cytomegalovirus, vesicular stomatitis virus, human cytomegalovirus, vesicular stomatitis virus, respiratory syncytial virus, Sindbis virus, Semliki Forest virus, Junin virus, Tacaribe virus, murine sarcoma virus, and human immunodeficiency virus. They are not inhibitory to non-enveloped viruses, such as poliovirus and **reovirus**. The broad-spectrum antiviral effects of these compds. depend on their mol. weight and degree of sulfation. Pharmacokinetic studies in rabbits have indicated that after i.v. bolus injection the serum concns. of these compds. decay biphasically, with an initial half-life of .apprx.90-120 min.

L3 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1979:403765 CAPLUS
DOCUMENT NUMBER: 91:3765
TITLE: Novel polynucleotide inducers of human interferon
AUTHOR(S): De Clercq, E.
CORPORATE SOURCE: Rega Inst. Med. Res., Louvain, Belg.
SOURCE: International Immunobiological Symposium, [Proceedings] (1977), 11(Proc.-Symp. Prep., Stand. Clin. Use Interferon), 65-81
CODEN: IISYD5
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
A large variety of double-stranded RNAs of either synthetic or natural origin have been compared for their ability to induce interferon in human diploid fibroblasts. The human diploid cells were incubated (primed) with human interferon before exposure to the polynucleotide, and, after the polynucleotide was removed, the cells were treated (superinduced) with metabolism inhibitors (cycloheximide and actinomycin D). Under these optimized conditions, (I)n·(C)n, applied to the cells at 10-100 μg/mL, regularly induced interferon titers of ≥104 IU per mL. Natural double-stranded RNAs (extracted from either bacteriophage, mycophage or **reovirus**) and alternating **copolymers** [(A-U)n·(A-U)n, (I-C)n·(I-C)n and (G-C)n·(G-C)n] were consistently less effective in inducing interferon than (I)n·(C)n, irresp. of the dosage at which they were tested. However, several homopolymer pairs, including (A)n·(U)n, (A)n·(rT)n, (I)n·(br5C)n, (I)n·(s2C)n, (dIz)n·(C)n and (dIcl)n·(C)n exhibited an interferon-inducing activity comparable to that of (I)n·(C)n. (I)n·(C)n complexes of defined mol. size proved even more effective than the standard (I)n·(C)n preparation, provided that the (I)n component was of high mol. size (12.5 S). Thus, the large-scale production of human interferon in fibroblast cell cultures, there exist valuable alternatives to the use of (I)n·(C)n as interferon inducer.

L3 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1978:70591 CAPLUS
DOCUMENT NUMBER: 88:70591
TITLE: Differential effects of various double-stranded RNAs on protein synthesis in rabbit reticulocyte lysates
AUTHOR(S): Content, Jean; Lebleu, Bernard; De Clercq, Erik
CORPORATE SOURCE: Pasteur Inst., Brussels, Belg.
SOURCE: Biochemistry (1978), 17(1), 88-94
CODEN: BICHAW; ISSN: 0006-2960
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Natural double-stranded (ds) RNA mols. (either mycophage, bacteriophage, or ***reovirus*** ds RNA) are extremely potent inhibitors of protein synthesis, effecting .apprx.90% inhibition at a concentration ≥10 ng/mL. A similar inhibitory potency is exhibited by the alternating **copolymer** (A-U)n-(A-U)n. However, homopolynucleotide pairs such as (A)n-(U)n and (I)n-(C)n are much less efficient inhibitors. Ten-100-fold higher concns. were required than for the natural ds RNA mols., and the extent of inhibition never was >50-60%. Two analogs of (I)n-(C)n, (I)n-(5-bromocytosine)n and (I)n-(2-thiocytosine)n are inactive in inhibiting protein synthesis. In some aspects, e.g., mol. size, the interferon-inducing capacity of ds RNA mols. and their inhibitory effect on protein synthesis appear to be governed by the same structural parameters. However, the observation that the natural ds RNA mols., although much more efficient as inhibitors of protein synthesis (in rabbit reticulocyte lysates), proved considerably less effective in inducing interferon (in primary rabbit kidney cell cultures) than their homopolymer counterparts, clearly indicates that the fine structural requirements underlying the interferon-inducing and protein synthesis-inhibiting properties of ds RNA mols. are not identical.

L3 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1978:48916 CAPLUS
DOCUMENT NUMBER: 88:48916
TITLE: Comparative study of various double-stranded RNAs as inducers of human interferon
AUTHOR(S): De Clercq, E.; Torrence, P. F.
CORPORATE SOURCE: Rega Inst. Med. Res., Katholieke Univ. Leuven, Louvain, Belg.
SOURCE: Journal of General Virology (1977), 37(3), 619-23
CODEN: JGVIAY; ISSN: 0022-1317
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Various double-stranded RNAs of either synthetic or natural origin have been compared for their interferon-inducing potency in human skin fibroblasts primed with interferon and superinduced with cycloheximide and actinomycin D. While natural double-stranded RNAs (extracted from either Penicillium chrysogenum mycophage, f2 bacteriophage, or **reovirus**) and alternating ***copolymers*** [(A-U)n.(A-U)n, (G-C)n.(G-C)n, (I-C)n.(I-C)n] proved relatively less effective in inducing interferon than (I)n.(C)n, a variety of synthetic homopolymer pairs, including (I)n.(poly(5-bromocytidylic acid))n, (I)n.(poly(2-thiocyticylic acid))n, (A)n.(poly(ribothymidylic acid))n and (A)n.(C)n, showed an interferon-inducing activity comparable to that of (I)n.(C)n..

L3 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1975:51900 CAPLUS
DOCUMENT NUMBER: 82:51900
TITLE: Specificity of the binding of the estradiol receptor protein to deoxyribonucleic acid
AUTHOR(S): Yamamoto, Keith R.; Alberts, Bruce
CORPORATE SOURCE: Dep. Biochem. Sci., Princeton Univ., Princeton, NJ, USA
SOURCE: Journal of Biological Chemistry (1974), 249(22), 7076-86
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The hormone-dependent binding of uterine estradiol receptor protein to a variety of nucleic acids and nucleoproteins, using salt conditions in the physiol. range was measured by sedimentation partition chromatog., a new method for quantitating interactions between 2 macromols. which allows a constant concentration of nucleic acid to be sedimented through a narrow zone containing the receptor. The form of the estradiol receptor which sediments at 5S binds to DNA at least 15-fold more tightly than does the 4S form. Most strikingly, the 5S receptor binds equally well (K = 300-400 μg/ml) to the following double-stranded DNA's: heterologous or homologous mammalian DNA, bacterial DNA, and polydeoxyadenylate-deoxythymidylate **copolymer** (a synthetic DNA); in contrast, no interaction was detected with double-stranded ***reovirus*** RNA. No significant binding of the 5S receptor to either DNA or uterinie chromatin was found when tested under these salt conditions by either gel permeatioin chromatog. or standard sucrose gradient cosedimentation assays. Because of the lability of receptor proteins, both the gel permeation and sucrose gradient assays are subject to serious artifacts: in particular, aggregated receptors can appear to be tightly DNA-bound. Short term cosedimentation of receptors with the same DNA preparation sheared to two different sizes is shown to be necessary to distinguish between receptor aggregation and DNA binding. The low affinity, nonspecific, interaction of the estradiol receptor protein with DNA in vitro agrees with several in vivo observations. Thus, although there are good reasons to believe that the receptor activates

genes by interacting preferentially with a small number of specific sites on the genome, these interactions may be obscured, both in vitro and in vivo, by a large background of nonspecific DNA binding.

L3 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1971:138476 CAPLUS
DOCUMENT NUMBER: 74:138476
TITLE: Concentration and purification of viruses by adsorption to and elution from insoluble polyelectrolytes
AUTHOR(S): Wallis, Craig; Melnick, Joseph L.; Fields, Joseph E.
CORPORATE SOURCE: Coll. Med., Baylor Univ., Houston, TX, USA
SOURCE: Applied Microbiology (1971), 21(4), 703-9
CODEN: APMBAY; ISSN: 0003-6919
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Acid-resistant, nonenveloped viruses belonging to the enterovirus, ***reovirus*** , and adenovirus groups were readily concentrated on PE60, an insol. cross-linked polyelectrolyte based on isobutylene maleic anhydride. Hydrolysis of PE60 by NaOH increased its capacity to adsorb viruses. H+ levels played an important role in virus concentration; optimal pH levels for maximum virus adsorption
were between pH 3.0 and 4.5. Undild. virus was easily concentrated from large vols. on PE60, and the adsorbed virus was readily eluted at pH 8-9.

L3 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1969:113344 CAPLUS
DOCUMENT NUMBER: 70:113344
TITLE: Antibodies to polyadenylate-polyuridylate **copolymers** as reagents for double strand RNA and DNA-RNA hybrid complexes
AUTHOR(S): Schwartz, Edward Frank; Stollar, B David
CORPORATE SOURCE: Sch. of Med., Tufts Univ., Boston, MA, USA
SOURCE: Biochemical and Biophysical Research Communications (1969), 35(1), 115-20
CODEN: BBRCA9; ISSN: 0006-291X
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Rabbits were immunized with complexes of methylated bovine serum albumin and double helical **copolymers** of polyadenylate and polyuridylate, and the resulting sera were examined by 2-dimensional immunodiffusion and quant. complement fixation. The sera reacted with the inducing **copolymer**, with polyinosinate-polycytidylate, with the double-stranded RNA of ***reovirus*** , and to a lesser extent with DNA-RNA hybrids prepared by heating denatured T4 bacteriophage DNA with T4-induced RNA. There was no reaction with polyadenylate alone, polyuridylate alone, polyguanidylate-polycyctidylate, Escherichia coli soluble RNA, yeast RNA, total RNA extracted from KB cells, or with native or denatured DNA from calf thymus, salmon, E. coli, or dogfish erythrocytes. The reactivity of double-stranded polyribonucleotides was abolished by thermal denaturation. The sera could be used to measure the presence of double-stranded RNA in the presence of a large excess of other nucleic acids. The method should be useful for studying the appearance of replicative forms of RNA viruses without the need for artificially stopping host-cell RNA synthesis. In the absence of double-stranded RNA, the sera can be used to measure DNA-RNA hybrids directly.

=> adenovirus and L2
20745 ADENOVIRUS

```
          2969 ADENOVIRUSES
         21288 ADENOVIRUS
                 (ADENOVIRUS OR ADENOVIRUSES)
L4          29 ADENOVIRUS AND L2

=> gene (s) therapy
        879216 GENE
        332098 GENES
        930688 GENE
                 (GENE OR GENES)
        228249 THERAPY
         16154 THERAPIES
        237006 THERAPY
                 (THERAPY OR THERAPIES)
L5       41894 GENE (S) THERAPY

=> L5 and L2
L6         270 L5 AND L2

=> delivery and L6
        172156 DELIVERY
          1429 DELIVERIES
        173045 DELIVERY
                 (DELIVERY OR DELIVERIES)
L7         228 DELIVERY AND L6

=> oncolysis and L2
           153 ONCOLYSIS
L8           0 ONCOLYSIS AND L2

=> virus (s) vaccine
        304226 VIRUS
         65245 VIRUSES
        315315 VIRUS
                 (VIRUS OR VIRUSES)
         44358 VACCINE
         45182 VACCINES
         55822 VACCINE
                 (VACCINE OR VACCINES)
L9       15329 VIRUS (S) VACCINE

=> L2 and L9
L10         86 L2 AND L9

=> L7 and L10
L11          2 L7 AND L10

=> DIS L11 1- IBIB IABS
YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 5.36 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L11  ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:        2002:715746  CAPLUS
DOCUMENT NUMBER:         137:231014
TITLE:                   Sustained peptide-specific gamma interferon T-cell
                         response in rhesus macaques immunized with human
                         immunodeficiency virus gag DNA
                         vaccines
AUTHOR(S):               Caulfield, Michael J.; Wang, Su; Smith, Jeffrey G.;
                         Tobery, Timothy W.; Liu, Xu; Davies, Mary-Ellen;
                         Casimiro, Danilo R.; Fu, Tong-Ming; Simon, Adam;
                         Evans, Robert K.; Emini, Emilio A.; Shiver, John
CORPORATE SOURCE:        Departments of Virus and Cell Biology, Merck Research
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Laboratories, West Point, PA, 19486, USA
SOURCE: Journal of Virology (2002), 76(19), 10038-10043
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:

The authors examined the influence of dose and method of antigen **delivery** on the dynamics and durability of T-cell responses to candidate human immunodeficiency **virus** (HIV) **vaccines**. Codon-optimized sequences from the HIV gag gene were inserted into alternative DNA vaccine vectors to express the coding sequence with or without the tissue plasminogen activator leader sequence. The authors delivered the vaccines by i.m. injection as plasmid DNA without adjuvant or as plasmid DNA formulated with a novel block **copolymer** adjuvant (CRL8623) and then monitored the ensuing T-cell responses by using a gamma interferon enzyme-linked immunospot assay. The authors demonstrated persistence of the cell-mediated immune (CMI) response in rhesus macaques for at least 18 mo following a four-dose vaccination regimen. The plasmid vaccine, with or without CRL8623, was immunogenic in macaques; however, the form coadministered with adjuvant exhibited improved T-cell responses, with a bias toward more antigen-specific CD8+ T cells. Finally, the authors examined the fine specificity of the T-cell response to the gag vaccines by testing the response of 23 vaccinated macaques to individual Gag 20-mer peptides. Collectively, the monkeys responded to 25 epitopes, and, on average, each monkey recognized a min. of 2.7 epitopes. The results indicate that a broad and durable CMI response to HIV DNA vaccines can be induced in a relevant nonhuman primate model.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:262176 CAPLUS
DOCUMENT NUMBER: 130:295535
TITLE: Immunogenic peptides from the human papilloma virus E7 protein
INVENTOR(S): Urban, Robert G.; Chicz, Roman M.; Collins, Edward J.; Hedley, Mary Lynne
PATENT ASSIGNEE(S): Pangaea Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9918995	A1	19990422	WO 1998-US21456	19981009
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6013258	A	20000111	US 1997-948378	19971009
CA 2305683	AA	19990422	CA 1998-2305683	19981009
AU 9897992	A1	19990503	AU 1998-97992	19981009
AU 746644	B2	20020502		
EP 1021202	A1	20000726	EP 1998-952244	19981009
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001519177	T2	20011023	JP 2000-515627	19981009

PRIORITY APPLN. INFO.: US 1997-948378 A1 19971009
WO 1998-US21456 W 19981009

ABSTRACT:
The invention provides immunogenic peptides from the HPV type 16 E7 protein that comprise overlapping class I restricted T cell epitopes. Also disclosed are methods of administering DNA mols. encoding these peptides to a host mammal.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> L7 and adenovirus
20745 ADENOVIRUS
2969 ADENOVIRUSES
21288 ADENOVIRUS
(ADENOVIRUS OR ADENOVIRUSES)
L12 9 L7 AND ADENOVIRUS

=> DIS L12 1- IBIB IABS
YOU HAVE REQUESTED DATA FROM 9 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 24.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L12 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:621982 CAPLUS
TITLE: Extended plasma circulation time and decreased toxicity of polymer-coated **adenovirus**
AUTHOR(S): Green, N. K.; Herbert, C. W.; Hale, S. J.; Hale, A. B.; Mautner, V.; Harkins, R.; Hermiston, T.; Ulbrich, K.; Fisher, K. D.; Seymour, L. W.
CORPORATE SOURCE: Hybrid Systems Ltd, Oxford BioBusiness Centre, Littlemore, Oxford, UK
SOURCE: Gene Therapy (2004), 11(16), 1256-1263
CODEN: GETHEC; ISSN: 0969-7128
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Systemic **delivery** of adenoviral vectors is a major goal in cancer ***gene*** **therapy**, but is currently prohibited by rapid hepatic uptake of virus following i.v. injection with levels of viable virus in the murine plasma typically falling to less than 0.1% after 30 min. We have used a surface-masking technique based on multivalent **copolymers** of poly(N-(2-hydroxypropyl)methacrylamide) to ablate all pathways of receptor-mediated infection, combined with dose modulation to achieve partial saturation of nonspecific uptake pathways. Polymer coating gave at least 100-fold decreased hepatic transgene expression at all doses and even high doses of coated virus (pc-virus) showed no weight loss or stimulation of serum transaminases. Low doses of virus and pc-virus (109 viral particles (vp)/mouse) were mainly captured by the liver (assessed by quant. PCR), although higher doses led to greater fractional persistence in the plasma (measured after 30 min). Coated virus at a dose of 6 + 1011 vp/mouse showed nearly 50% plasma circulation, representing a 3.5-fold greater area under the concentration-time curve (0-30 min) compared to unmodified virus. Such an increase in the bioavailability of **adenovirus**, coupled with substantial decreases in toxicity and unwanted transgene expression is an important step towards producing systemically available tumor-targeted viruses.

L12 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:985319 CAPLUS
DOCUMENT NUMBER: 140:223236
TITLE: Localized gene **delivery** using antibody

tethered **adenovirus** from polyurethane heart valve cusps and intra-aortic implants

AUTHOR(S): Stachelek, S. J.; Song, C.; Alferiev, I.; Defelice, S.; Cui, X.; Connolly, J. M.; Bianco, R. W.; Levy, R. J.

CORPORATE SOURCE: The Children's Hospital of Philadelphia, Philadelphia, PA, 19104-4318, USA

SOURCE: Gene Therapy (2004), 11(1), 15-24
CODEN: GETHEC; ISSN: 0969-7128

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal

LANGUAGE: English

ABSTRACT:

The present study investigated a novel approach for **gene** ***therapy*** of heart valve disease and vascular disorders. We formulated and characterized implantable polyurethane films that could also function as gene **delivery** systems through the surface attachment of replication defective **adenoviruses** using an anti-**adenovirus** antibody tethering mechanism. Our hypothesis was that we could achieve site-specific gene **delivery** to cells interacting with these polyurethane implants, and thereby demonstrate the potential for intravascular devices that could also function as gene **delivery** platforms for therapeutic vectors. Previous research by our group has demonstrated that polyurethane elastomers can be derivatized post-polymerization through a series of chemical reactions activating the hard segment amide groups with alkyl bromine residues, which can enable a wide variety of subsequent chemical modifications. Furthermore, prior research by our group investigating gene **delivery** intravascular stents has shown that collagen-coated balloon expandable stents can be configured with anti-***adenovirus*** antibodies via thiol-based chemical, and can then tether adenoviral vectors at doses that lead to high levels of localized arterial neointima expression, but with virtually no distal spread of vector. Thus, we sought to create two-device configurations for our investigations building on this previous research. (1) Polyurethane films coated with Type I collagen were thiol activated to permit covalent attachment of anti-**adenovirus** antibodies to enable gene **delivery** via vector tethering. (2) Polyurethane films were also formulated with direct covalent attachment of anti-**adenovirus** antibodies to polyurethane hard segments derivatized with alkyl-thiol groups, thereby also enabling tethering of replication-defective **adenoviruses**. Both formulations demonstrated highly localized and efficient transduction in cell culture studies with rat arterial smooth muscle cells. In vivo expts. with collagen-coated polyurethane films investigated an abdominal aorta implant model in pigs using a button configuration that simulated the blood contacting environment of a vascular graft. One week explants of the collagen-coated polyurethane films demonstrated 14.3±2.5% of neointimal cells on the surface of the implant transduced with green fluorescent protein-**adenovirus** (AdGFP) vector loadings of 1 + 108 PFU. PCR studies demonstrated no detectable vector DNA in blood or distal organs. Similarly, polyurethane films with direct attachment of antivector antibodies to the surface were used in sheep pulmonary valve leaflet replacement studies, simulating the blood contacting environment of a prosthetic heart valve cusp. Polyurethane films with antibody tethered AdGFP vector (108 PFU) demonstrated 25.1±5.7% of attached cells transduced in these 1 wk studies, with no detectable vector DNA in blood or distal organs. In vivo GFP expression was confirmed with immunohistochem. It is concluded that site-specific intravascular **delivery** of adenoviral vectors for ***gene*** **therapy** can be achieved with polyurethane implants utilizing the antivector antibody tethering mechanism.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:833383 CAPLUS

DOCUMENT NUMBER: 135:370639
TITLE: Human IgM antibodies with the capability of inducing remyelination, and diagnostic and therapeutic uses thereof particularly in the central nervous system
INVENTOR(S): Rodriguez, Moses; Miller, David J.; Pease, Larry R.
PATENT ASSIGNEE(S): Mayo Foundation for Medical Education & research, USA
SOURCE: PCT Int. Appl., 219 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001085797	A1	20011115	WO 2000-US14902	20000530
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1294770	A1	20030326	EP 2000-948498	20000530
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
BR 2000015875	A	20030624	BR 2000-15875	20000530
JP 2004516807	T2	20040610	JP 2001-582396	20000530
PRIORITY APPLN. INFO.:			US 2000-568351	A2 20000510
			WO 2000-US14902	W 20000530

ABSTRACT:
Methods are described for treating demyelinating diseases in mammals, such as multiple sclerosis in humans, and viral diseases of the central nervous system of humans and domestic animals, such as post-infectious encephalomyelitis, or prophylactically inhibiting the initiation or progression of demyelination in these disease states, using human monoclonal autoantibodies characterized by their ability to bind structures and cells within the central nervous system. In particular, the methods utilize human monoclonal antibodies selected from the group of sHIgM22 (LIM 22), sHIgM46 ebvHIgM MSI19D10, CB2bG8, AKJR4, CB2iE12, CB2iE7 and MSI 19E5, monomers thereof, active fragments thereof and isolated or synthetic human or humanized autoantibodies having the characteristics of the foregoing. Nucleic acids and DNA mols. encoding the human monoclonal antibodies, or portions thereof, are provided. The invention also extends to the preparation and use of human polyclonal and monoclonal autoantibodies, monomers thereof, active fragments, peptide derivs. and fragments, and analogs, cognates, agonists and the like corresponding materials, and their use in diagnostic and therapeutic applications. For example, the autoantibodies, monomers, fragments, haptens, and peptide equivalent, are useful in the promotion of neural regeneration and neuroprotection, and therapeutic compns. and vaccines containing peptides or antibodies are included and presented.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:693058 CAPLUS
DOCUMENT NUMBER: 135:247193
TITLE: Method and device for the production of microparticles for controlled release of water-soluble pharmaceuticals and viral vectors. Application to the administration of plasmid DNA and defective

recombinant **adenovirus**

INVENTOR(S): Garcia Del Barrio, Guillermo; Novo Villaverde, Francisco Javier; Recarte Flamarique, Felix Juan; Renedo Omaecheverria, Maria Jesus; Irache Garreta, Juan Manuel

PATENT ASSIGNEE(S): Instituto Cientifico y Tecnologico de Navarra, S.A., Spain

SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Spanish

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001068059	A1	20010920	WO 2001-ES100	20010315
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
ES 2160089	A1	20011016	ES 2000-629	20000315
ES 2160089	B1	20020516		

PRIORITY APPLN. INFO.: ES 2000-629 A 20000315

ABSTRACT:
The method involves obtaining a multiple emulsion by injecting immiscible liquid phases under high turbulence. The device used for said purpose, which is called TROMS or "Total Recirculation One-Machine System", comprises a pumping system that is connected to a Rehodine valve from which two needles having different inner diams. stick out. The first needle is inserted into the first mixing vessel and the other needle is inserted into the second mixing vessel. The organic phase is introduced into the system by means of a glass syringe with a Teflon plunger. The mixing vessels are connected to the pump by two valves. The method and device used are suitable for the production of homogeneous microcapsule or heterogeneous microsphere type microparticles that are suitable for the encapsulation of water-soluble pharmaceuticals including plasmid DNA, RNA, ***genes*** , oligonucleotides, peptides, proteins and viral vectors used in ***gene*** **therapy** and defective recombinant **adenovirus**.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:373155 CAPLUS

DOCUMENT NUMBER: 135:348786

TITLE: Cell contact dependent extended release of **adenovirus** by microparticles in vitro

AUTHOR(S): Cavanagh, H. M. A.; Dingwall, D.; Steel, J.; Benson, J.; Burton, M.

CORPORATE SOURCE: School of Biomedical Sciences, Charles Sturt University, Wagga Wagga, 2678, Australia

SOURCE: Journal of Virological Methods (2001), 95(1-2), 57-64
CODEN: JVMEDH; ISSN: 0166-0934

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

ABSTRACT:
Adenoviral vectors remain one of the most promising methods of gene ***delivery*** but are plagued by several inherent problems including immune

inactivation and transient expression. This paper reports a novel microparticle-based **delivery** system for **adenovirus** that allows high uptake of virus, stable complex formation and extended release. In addition, this microparticle/**adenovirus** complex has been demonstrated to only release virus upon cell contact. The significant clin. implications of this **delivery** system are discussed.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:237972 CAPLUS
DOCUMENT NUMBER: 132:270076
TITLE: Microsphere encapsulation of gene transfer vectors
INVENTOR(S): Hilfinger, John M.; Davidson, Beverly L.; Beer, Steven J.; Crison, John R.; Amidon, Gordon L.
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 22 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6048551	A	20000411	US 1997-824997	19970327
PRIORITY APPLN. INFO.:			US 1997-824997	19970327

ABSTRACT:
A controlled release **delivery** system includes a functional gene vector in a biodegradable polymeric microsphere encapsulating the vector. Poly(lactic-glycolic) acid (PLGA) was dissolved in dichloromethane and mixed with aqueous suspensions of virus. Addns. to the viral encapsulation buffer can include glycerol, sucrose, and bovine serum albumin. In initial expts. to test some of the parameters of the encapsulation technique, only BSA was encapsulated. The solution was vortexed to form a water-in-oil emulsion. Dichloromethane was removed and the resulting microspheres were filtered on nylon filters and washed with PBS. Ganciclovir was encapsulated in the polyester microspheres.

REFERENCE COUNT: 84 THERE ARE 84 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:736893 CAPLUS
DOCUMENT NUMBER: 131:332976
TITLE: Sustained dna **delivery** from structural porous matrices for **gene therapy** applications with special emphasis is on bone formation and regeneration
INVENTOR(S): Shea, Lonnie D.; Bonadido, Jeffrey; Mooney, David J.
PATENT ASSIGNEE(S): The Regents of the University of Michigan, USA
SOURCE: PCT Int. Appl., 144 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9958656	A2	19991118	WO 1999-US10330	19990512
WO 9958656	A3	20000106		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,

DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BJ, BJ, CF, CG,
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9938986	A1	19991129	AU 1999-38986		19990512
PRIORITY APPLN. INFO.:			US 1998-85305P	P	19980513
			US 1998-109054P	P	19981119
			WO 1999-US10330	W	19990512

ABSTRACT:
Disclosed are particular 3-dimensional structural matrixes containing DNA and their use in the prolonged release of DNA in various biol. environments. The structural matrix is a porous polymer [PLGA]-based containing pores formed by gas foaming involving inert gases (CO2) and leaching out of a water-soluble particulate (salt, NACL, sugar, glucose, sucrose, mannitol) when exposed to body fluids. The admixt. is compression molded into a selected size and shape prior to executing the gas foaming process. The structural matrix may also be an alginate or modified alginate matrix. This structural matrix is a biocompatible or biodegradable matrix. It may also be a lactic acid polymer, glycolic acid polymer or lactic acid/glycolic acid **copolymer** matrix. At least part of this matrix may be comprised of lactic acid/glycolic acid (PLGA) **copolymer** matrix. The structural matrix may be modified where one side section is bonded to one cell interaction mol. such as cell adhesion mols., cell attachment peptides, proteoglycan attachment peptide sequences, proteoglycans, cell adhesion polysaccharides, growth factors, cell adhesion enzymes, RGD peptide, fibronectin, vitronectin, Laminin A, Laminin B1, Laminin B2, collagen 1 and thrombospondin. The DNA-matrix materials are created such that they maintain a defined space, allowing cellular migration, transfection and proliferation to occur in a controlled manner. Such DNA-containing structural matrixes are thus particularly useful in in vivo cell transfection and ***gene*** expression in the context of **gene therapy**. This may encode a protein for stimulating bone progenitors or wound healing in fibroblast or in tissue or organ regeneration or transplantation or an antigen for immunity or cytotoxic or apoptosis-inducing protein or a transcription factor or elongation factor or cell cycle control protein or kinase or phosphatase or DNA repair protein or oncogene or tumor suppressor or angiogenic protein or anti-angiogenic protein or immune response stimulating protein or cell surface receptor or accessory signaling mol. or transport protein or anti-bacterial or anti-viral protein or hormone or neurotransmitter or growth factor or growth factor receptor or interferon or interleukin or chemokine or cytokine or colony stimulating factor or chemotactic factor protein of growth hormone or parathyroid hormone or PTH1-34 polypeptide or bone morphogenic protein or BMP-2A or BMP-2B or BMP-3 or BMP-4 or BMP-5 or BMP-6 or BMP-7 or BMP-8 or TGF-α or TGF-β1 or TGF-β2 or latent TGFβ binding protein or activin/inhibin protein or FGF or GMCSF or EGF or PDGF or insulin-like growth factor or leukemia inhibitory factor. This method allows for the use in **gene** transfer to cells within a tissue site and in manufacture of a medicament for **gene therapy**. Implantable medical devices comprising this gene-matrix are described. The release of nucleic acids from the matrix is controlled by diffusion. This method also applies to cancer therapy or treating viral infection.

L12 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	1999:614618 CAPLUS
DOCUMENT NUMBER:	131:355989
TITLE:	Poly-L-lysine improves gene transfer with **adenovirus** formulated in PLGA microspheres
AUTHOR(S):	Matthews, C. B.; Jenkins, G.; Hilfinger, J. M.; Davidson, B. L.
CORPORATE SOURCE:	Department of Internal Medicine, University of Iowa College of Medicine, Iowa City, IA, 52242, USA

SOURCE: Gene Therapy (1999), 6(9), 1558-1564
CODEN: GETHEC; ISSN: 0969-7128
PUBLISHER: Stockton Press
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
In vivo gene transfer with recombinant **adenovirus** vectors can be hindered by the immunogenicity of the **adenovirus** capsid proteins. Previous work showed that formulation of the vector with biodegradable polymers such as poly-lactic-glycolic acid (PLGA), polyethylene glycol (PEG), or lipids, may shield the virus from inhibition by neutralizing antibodies. Formulation of **adenovirus** in PLGA microspheres also allowed for extended release in vitro. In expts. described here, we found that the surfactant used in the formation of the primary emulsion could significantly improve the overall yield of virus released. We also tested the effects of adding poly-L-lysine to ***adenovirus*** before encapsulation with PLGA. Our results show that although PLL did not effect the yield of virus encapsulated or released from the microspheres, it significantly improved the efficiency of gene transfer after release from the polymer.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:175163 CAPLUS
DOCUMENT NUMBER: 126:176910
TITLE: Gene preparations
INVENTOR(S): Terada, Masaaki; Ochiya, Takahiro; Miyata, Teruo; Itoh, Hiroshi
PATENT ASSIGNEE(S): Koken Co., Ltd., Japan; Sumitomo Pharmaceuticals Company, Limited; Terada, Masaaki; Ochiya, Takahiro; Miyata, Teruo; Itoh, Hiroshi
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9702047	A1	19970123	WO 1996-JP1824	19960702
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, KE, KG, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML				
CA 2225998	AA	19970123	CA 1996-2225998	19960702
AU 9662436	A1	19970205	AU 1996-62436	19960702
AU 704694	B2	19990429		
JP 09071542	A2	19970318	JP 1996-171990	19960702
EP 844004	A1	19980527	EP 1996-921138	19960702
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1193916	A	19980923	CN 1996-196463	19960702
PRIORITY APPLN. INFO.:			JP 1995-167744 A	19950703
			WO 1996-JP1824 W	19960702

ABSTRACT:
Gene prepns. comprise desired genes or vectors containing desired genes integrated thereinto and carriers for supporting the same.

```
=> herpes (w) virus and L7
         22785 HERPES
        304226 VIRUS
         65245 VIRUSES
        315315 VIRUS
                 (VIRUS OR VIRUSES)
          6785 HERPES (W) VIRUS
L13          0 HERPES (W) VIRUS AND L7

=> HSV and L2
         10399 HSV
            37 HSVS
         10401 HSV
                 (HSV OR HSVS)
L14         23 HSV AND L2

=> DNA (s) vaccine
        675555 DNA
         17228 DNAS
        678203 DNA
                 (DNA OR DNAS)
         44358 VACCINE
         45182 VACCINES
         55822 VACCINE
                 (VACCINE OR VACCINES)
L15       6411 DNA (S) VACCINE

=> L2 and L15
L16         38 L2 AND L15

=> HSV and L16
         10399 HSV
            37 HSVS
         10401 HSV
                 (HSV OR HSVS)
L17          1 HSV AND L16

=> L15 and L2
L18         38 L15 AND L2

=> L14 and L15
L19          1 L14 AND L15

=> DIS L19 1 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.68 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L19  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:        2002:761954  CAPLUS
DOCUMENT NUMBER:         138:37674
TITLE:                   Protective immunity against lethal HSV-1
                         challenge in mice by nucleic acid-based immunization
                         with herpes simplex virus type-1 genes specifying
                         glycoproteins gB and gD
AUTHOR(S):               Baghian, Abolghasem; Chouljenko, Vladimir N.;
                         D'Auvergne, Oswald; Newman, Mark J.; Baghian, Salman;
                         Kousoulas, Konstantin G.
CORPORATE SOURCE:        Department of Veterinary Microbiology and
                         Parasitology, School of Veterinary Medicine, Louisiana
                         State University, Baton Rouge, LA, 70803, USA
SOURCE:                  Journal of Medical Microbiology (2002), 51(4), 350-357
                         CODEN: JMMIAV; ISSN: 0022-2615
PUBLISHER:               Lippincott Williams & Wilkins
DOCUMENT TYPE:           Journal
```

LANGUAGE: English
ABSTRACT:
DNA-based **vaccines** were employed to assess protective immunity against herpes simplex virus in exptl. infections of hairless (strain SKH1) and BALB/c mice. Mice were vaccinated with plasmids containing the herpes simplex virus type-1 (**HSV**-1) glycoprotein B (gB) or D (gD) genes under the human cytomegalovirus immediate-early promoter control. ***Vaccines*** were injected i.m. or i.p. as purified **DNA** alone or as formulations supplemented with different non-ionic block **copolymers**. Antibody responses were assessed by immunofluorescence and radio-immunopptn. assays. Mice inoculated with either gB or gD plasmid, alone or with non-ionic block **copolymers** CRL 1029 and CRL 1190, produced high levels of antibodies specific for gB or gD. Three weeks after the last vaccination, mice were challenged with a clin. **HSV**-1 isolate (ABGK-1) by inoculation of a shaved and subsequently scarified area between the third and fourth lumbar vertebrae. Mice immunized with either gD or gB plasmid alone or mixed with ***copolymers*** were protected against lethal **HSV**-1 challenge when immunization was performed via the i.m. route. Immunizations given via the i.p. route induced humoral responses in some mice and protected the animals against lethal **HSV**-1 challenge only when the formulations contained ***copolymers.*** The BALB/c mouse model was shown to be as good a model as the hairless mouse model.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L17 1 IBIB IABS
THE ESTIMATED COST FOR THIS REQUEST IS 2.68 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L17 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:761954 CAPLUS
DOCUMENT NUMBER: 138:37674
TITLE: Protective immunity against lethal **HSV**-1 challenge in mice by nucleic acid-based immunization with herpes simplex virus type-1 genes specifying glycoproteins gB and gD
AUTHOR(S): Baghian, Abolghasem; Chouljenko, Vladimir N.; D'Auvergne, Oswald; Newman, Mark J.; Baghian, Salman; Kousoulas, Konstantin G.
CORPORATE SOURCE: Department of Veterinary Microbiology and Parasitology, School of Veterinary Medicine, Louisiana State University, Baton Rouge, LA, 70803, USA
SOURCE: Journal of Medical Microbiology (2002), 51(4), 350-357
CODEN: JMMIAV; ISSN: 0022-2615
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
DNA-based **vaccines** were employed to assess protective immunity against herpes simplex virus in exptl. infections of hairless (strain SKH1) and BALB/c mice. Mice were vaccinated with plasmids containing the herpes simplex virus type-1 (**HSV**-1) glycoprotein B (gB) or D (gD) genes under the human cytomegalovirus immediate-early promoter control. ***Vaccines*** were injected i.m. or i.p. as purified **DNA** alone or as formulations supplemented with different non-ionic block **copolymers**. Antibody responses were assessed by immunofluorescence and radio-immunopptn. assays. Mice inoculated with either gB or gD plasmid, alone or with non-ionic block **copolymers** CRL 1029 and CRL 1190, produced high levels of antibodies specific for gB or gD. Three weeks after the last vaccination, mice were challenged with a clin. **HSV**-1 isolate (ABGK-1) by inoculation of a shaved and subsequently scarified area between the third and fourth lumbar vertebrae. Mice immunized with either gD or gB plasmid alone or mixed with

copolymers were protected against lethal **HSV**-1 challenge when immunization was performed via the i.m. route. Immunizations given via the i.p. route induced humoral responses in some mice and protected the animals against lethal **HSV**-1 challenge only when the formulations contained ***copolymers.*** The BALB/c mouse model was shown to be as good a model as the hairless mouse model.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L11 1- IBIB IABS
YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 5.36 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L11 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:715746 CAPLUS
DOCUMENT NUMBER: 137:231014
TITLE: Sustained peptide-specific gamma interferon T-cell response in rhesus macaques immunized with human immunodeficiency **virus** gag DNA **vaccines**
AUTHOR(S): Caulfield, Michael J.; Wang, Su; Smith, Jeffrey G.; Tobery, Timothy W.; Liu, Xu; Davies, Mary-Ellen; Casimiro, Danilo R.; Fu, Tong-Ming; Simon, Adam; Evans, Robert K.; Emini, Emilio A.; Shiver, John
CORPORATE SOURCE: Departments of Virus and Cell Biology, Merck Research Laboratories, West Point, PA, 19486, USA
SOURCE: Journal of Virology (2002), 76(19), 10038-10043
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The authors examined the influence of dose and method of antigen **delivery** on the dynamics and durability of T-cell responses to candidate human immunodeficiency **virus** (HIV) **vaccines**. Codon-optimized sequences from the HIV gag gene were inserted into alternative DNA vaccine vectors to express the coding sequence with or without the tissue plasminogen activator leader sequence. The authors delivered the vaccines by i.m. injection as plasmid DNA without adjuvant or as plasmid DNA formulated with a novel block **copolymer** adjuvant (CRL8623) and then monitored the ensuing T-cell responses by using a gamma interferon enzyme-linked immunospot assay. The authors demonstrated persistence of the cell-mediated immune (CMI) response in rhesus macaques for at least 18 mo following a four-dose vaccination regimen. The plasmid vaccine, with or without CRL8623, was immunogenic in macaques; however, the form coadministered with adjuvant exhibited improved T-cell responses, with a bias toward more antigen-specific CD8+ T cells. Finally, the authors examined the fine specificity of the T-cell response to the gag vaccines by testing the response of 23 vaccinated macaques to individual Gag 20-mer peptides. Collectively, the monkeys responded to 25 epitopes, and, on average, each monkey recognized a min. of 2.7 epitopes. The results indicate that a broad and durable CMI response to HIV DNA vaccines can be induced in a relevant nonhuman primate model.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:262176 CAPLUS
DOCUMENT NUMBER: 130:295535
TITLE: Immunogenic peptides from the human papilloma virus E7 protein

INVENTOR(S): Urban, Robert G.; Chicz, Roman M.; Collins, Edward J.; Hedley, Mary Lynne
PATENT ASSIGNEE(S): Pangaea Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9918995	A1	19990422	WO 1998-US21456	19981009
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6013258	A	20000111	US 1997-948378	19971009
CA 2305683	AA	19990422	CA 1998-2305683	19981009
AU 9897992	A1	19990503	AU 1998-97992	19981009
AU 746644	B2	20020502		
EP 1021202	A1	20000726	EP 1998-952244	19981009
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001519177	T2	20011023	JP 2000-515627	19981009

PRIORITY APPLN. INFO.: US 1997-948378 A1 19971009
WO 1998-US21456 W 19981009

ABSTRACT:
The invention provides immunogenic peptides from the HPV type 16 E7 protein that comprise overlapping class I restricted T cell epitopes. Also disclosed are methods of administering DNA mols. encoding these peptides to a host mammal.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> DIS L12 1- IBIB IABS
YOU HAVE REQUESTED DATA FROM 9 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 24.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L12 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:621982 CAPLUS
TITLE: Extended plasma circulation time and decreased toxicity of polymer-coated **adenovirus**
AUTHOR(S): Green, N. K.; Herbert, C. W.; Hale, S. J.; Hale, A. B.; Mautner, V.; Harkins, R.; Hermiston, T.; Ulbrich, K.; Fisher, K. D.; Seymour, L. W.
CORPORATE SOURCE: Hybrid Systems Ltd, Oxford BioBusiness Centre, Littlemore, Oxford, UK
SOURCE: Gene Therapy (2004), 11(16), 1256-1263
CODEN: GETHEC; ISSN: 0969-7128
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Systemic **delivery** of adenoviral vectors is a major goal in cancer ***gene*** **therapy**, but is currently prohibited by rapid hepatic uptake of virus following i.v. injection with levels of viable virus in the murine plasma typically falling to less than 0.1% after 30 min. We have used a

surface-masking technique based on multivalent **copolymers** of poly(N-(2-hydroxypropyl)methacrylamide) to ablate all pathways of receptor-mediated infection, combined with dose modulation to achieve partial saturation of nonspecific uptake pathways. Polymer coating gave at least 100-fold decreased hepatic transgene expression at all doses and even high doses of coated virus (pc-virus) showed no weight loss or stimulation of serum transaminases. Low doses of virus and pc-virus (109 viral particles (vp)/mouse) were mainly captured by the liver (assessed by quant. PCR), although higher doses led to greater fractional persistence in the plasma (measured after 30 min). Coated virus at a dose of 6 + 1011 vp/mouse showed nearly 50% plasma circulation, representing a 3.5-fold greater area under the concentration-time curve (0-30 min) compared to unmodified virus. Such an increase in the bioavailability of **adenovirus**, coupled with substantial decreases in toxicity and unwanted transgene expression is an important step towards producing systemically available tumor-targeted viruses.

L12 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:985319 CAPLUS
DOCUMENT NUMBER: 140:223236
TITLE: Localized gene **delivery** using antibody tethered **adenovirus** from polyurethane heart valve cusps and intra-aortic implants
AUTHOR(S): Stachelek, S. J.; Song, C.; Alferiev, I.; Defelice, S.; Cui, X.; Connolly, J. M.; Bianco, R. W.; Levy, R. J.
CORPORATE SOURCE: The Children's Hospital of Philadelphia, Philadelphia, PA, 19104-4318, USA
SOURCE: Gene Therapy (2004), 11(1), 15-24
CODEN: GETHEC; ISSN: 0969-7128
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The present study investigated a novel approach for **gene** ***therapy*** of heart valve disease and vascular disorders. We formulated and characterized implantable polyurethane films that could also function as gene **delivery** systems through the surface attachment of replication defective **adenoviruses** using an anti-**adenovirus** antibody tethering mechanism. Our hypothesis was that we could achieve site-specific gene **delivery** to cells interacting with these polyurethane implants, and thereby demonstrate the potential for intravascular devices that could also function as gene **delivery** platforms for therapeutic vectors. Previous research by our group has demonstrated that polyurethane elastomers can be derivatized post-polymerization through a series of chemical reactions activating the hard segment amide groups with alkyl bromine residues, which can enable a wide variety of subsequent chemical modifications. Furthermore, prior research by our group investigating gene **delivery** intravascular stents has shown that collagen-coated balloon expandable stents can be configured with anti-***adenovirus*** antibodies via thiol-based chemical, and can then tether adenoviral vectors at doses that lead to high levels of localized arterial neointima expression, but with virtually no distal spread of vector. Thus, we sought to create two-device configurations for our investigations building on this previous research. (1) Polyurethane films coated with Type I collagen were thiol activated to permit covalent attachment of anti-**adenovirus** antibodies to enable gene **delivery** via vector tethering. (2) Polyurethane films were also formulated with direct covalent attachment of anti-**adenovirus** antibodies to polyurethane hard segments derivatized with alkyl-thiol groups, thereby also enabling tethering of replication-defective **adenoviruses**. Both formulations demonstrated highly localized and efficient transduction in cell culture studies with rat arterial smooth muscle cells. In vivo expts. with collagen-coated polyurethane films investigated an abdominal aorta implant model in pigs using a button

configuration that simulated the blood contacting environment of a vascular graft. One week explants of the collagen-coated polyurethane films demonstrated 14.3±2.5% of neointimal cells on the surface of the implant transduced with green fluorescent protein-**adenovirus** (AdGFP) vector loadings of 1 + 108 PFU. PCR studies demonstrated no detectable vector DNA in blood or distal organs. Similarly, polyurethane films with direct attachment of antivector antibodies to the surface were used in sheep pulmonary valve leaflet replacement studies, simulating the blood contacting environment of a prosthetic heart valve cusp. Polyurethane films with antibody tethered AdGFP vector (108 PFU) demonstrated 25.1±5.7% of attached cells transduced in these 1 wk studies, with no detectable vector DNA in blood or distal organs. In vivo GFP expression was confirmed with immunohistochem. It is concluded that site-specific intravascular **delivery** of adenoviral vectors for ***gene*** **therapy** can be achieved with polyurethane implants utilizing the antivector antibody tethering mechanism.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:833383 CAPLUS
DOCUMENT NUMBER: 135:370639
TITLE: Human IgM antibodies with the capability of inducing remyelination, and diagnostic and therapeutic uses thereof particularly in the central nervous system
INVENTOR(S): Rodriguez, Moses; Miller, David J.; Pease, Larry R.
PATENT ASSIGNEE(S): Mayo Foundation for Medical Education & research, USA
SOURCE: PCT Int. Appl., 219 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001085797	A1	20011115	WO 2000-US14902	20000530
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1294770	A1	20030326	EP 2000-948498	20000530
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
BR 2000015875	A	20030624	BR 2000-15875	20000530
JP 2004516807	T2	20040610	JP 2001-582396	20000530
PRIORITY APPLN. INFO.:			US 2000-568351	A2 20000510
			WO 2000-US14902	W 20000530

ABSTRACT:
Methods are described for treating demyelinating diseases in mammals, such as multiple sclerosis in humans, and viral diseases of the central nervous system of humans and domestic animals, such as post-infectious encephalomyelitis, or prophylactically inhibiting the initiation or progression of demyelination in these disease states, using human monoclonal autoantibodies characterized by their ability to bind structures and cells within the central nervous system. In particular, the methods utilize human monoclonal antibodies selected from the group of sHIgM22 (LIM 22), sHIgM46 ebvHIgM MSI19D10, CB2bG8, AKJR4, CB2iE12, CB2iE7 and MSI 19E5, monomers thereof, active fragments thereof and isolated or synthetic human or humanized autoantibodies having the

characteristics of the foregoing. Nucleic acids and DNA mols. encoding the human monoclonal antibodies, or portions thereof, are provided. The invention also extends to the preparation and use of human polyclonal and monoclonal autoantibodies, monomers thereof, active fragments, peptide derivs. and fragments, and analogs, cognates, agonists and the like corresponding materials, and their use in diagnostic and therapeutic applications. For example, the autoantibodies, monomers, fragments, haptens, and peptide equivalent, are useful in the promotion of neural regeneration and neuroprotection, and therapeutic compns. and vaccines containing peptides or antibodies are included and presented.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:693058 CAPLUS
DOCUMENT NUMBER: 135:247193
TITLE: Method and device for the production of microparticles for controlled release of water-soluble pharmaceuticals and viral vectors. Application to the administration of plasmid DNA and defective recombinant **adenovirus**
INVENTOR(S): Garcia Del Barrio, Guillermo; Novo Villaverde, Francisco Javier; Recarte Flamarique, Felix Juan; Renedo Omaecheverria, Maria Jesus; Irache Garreta, Juan Manuel
PATENT ASSIGNEE(S): Instituto Cientifico y Tecnologico de Navarra, S.A., Spain
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Spanish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001068059	A1	20010920	WO 2001-ES100	20010315
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
ES 2160089	A1	20011016	ES 2000-629	20000315
ES 2160089	B1	20020516		

PRIORITY APPLN. INFO.: ES 2000-629 A 20000315
ABSTRACT:
The method involves obtaining a multiple emulsion by injecting immiscible liquid phases under high turbulence. The device used for said purpose, which is called TROMS or "Total Recirculation One-Machine System", comprises a pumping system that is connected to a Rehodine valve from which two needles having different inner diams. stick out. The first needle is inserted into the first mixing vessel and the other needle is inserted into the second mixing vessel. The organic phase is introduced into the system by means of a glass syringe with a Teflon plunger. The mixing vessels are connected to the pump by two valves. The method and device used are suitable for the production of homogeneous microcapsule or heterogeneous microsphere type microparticles that are suitable for the encapsulation of water-soluble pharmaceuticals including plasmid DNA, RNA, ***genes*** , oligonucleotides, peptides, proteins and viral vectors used in ***gene*** **therapy** and defective recombinant **adenovirus**.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:373155 CAPLUS
DOCUMENT NUMBER: 135:348786
TITLE: Cell contact dependent extended release of **adenovirus** by microparticles in vitro
AUTHOR(S): Cavanagh, H. M. A.; Dingwall, D.; Steel, J.; Benson, J.; Burton, M.
CORPORATE SOURCE: School of Biomedical Sciences, Charles Sturt University, Wagga Wagga, 2678, Australia
SOURCE: Journal of Virological Methods (2001), 95(1-2), 57-64
CODEN: JVMEDH; ISSN: 0166-0934
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Adenoviral vectors remain one of the most promising methods of gene ***delivery*** but are plagued by several inherent problems including immune inactivation and transient expression. This paper reports a novel microparticle-based **delivery** system for **adenovirus** that allows high uptake of virus, stable complex formation and extended release. In addition, this microparticle/**adenovirus** complex has been demonstrated to only release virus upon cell contact. The significant clin. implications of this **delivery** system are discussed.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:237972 CAPLUS
DOCUMENT NUMBER: 132:270076
TITLE: Microsphere encapsulation of gene transfer vectors
INVENTOR(S): Hilfinger, John M.; Davidson, Beverly L.; Beer, Steven J.; Crison, John R.; Amidon, Gordon L.
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 22 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6048551	A	20000411	US 1997-824997	19970327
PRIORITY APPLN. INFO.:			US 1997-824997	19970327

ABSTRACT:
A controlled release **delivery** system includes a functional gene vector in a biodegradable polymeric microsphere encapsulating the vector. Poly(lactic-glycolic) acid (PLGA) was dissolved in dichloromethane and mixed with aqueous suspensions of virus. Addns. to the viral encapsulation buffer can include glycerol, sucrose, and bovine serum albumin. In initial expts. to test some of the parameters of the encapsulation technique, only BSA was encapsulated. The solution was vortexed to form a water-in-oil emulsion. Dichloromethane was removed and the resulting microspheres were filtered on nylon filters and washed with PBS. Ganciclovir was encapsulated in the polyester microspheres.

REFERENCE COUNT: 84 THERE ARE 84 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:736893 CAPLUS
DOCUMENT NUMBER: 131:332976
TITLE: Sustained dna **delivery** from structural porous matrices for **gene therapy** applications with special emphasis is on bone formation and regeneration
INVENTOR(S): Shea, Lonnie D.; Bonadido, Jeffrey; Mooney, David J.
PATENT ASSIGNEE(S): The Regents of the University of Michigan, USA
SOURCE: PCT Int. Appl., 144 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9958656	A2	19991118	WO 1999-US10330	19990512
WO 9958656	A3	20000106		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BJ, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9938986	A1	19991129	AU 1999-38986	19990512
PRIORITY APPLN. INFO.:			US 1998-85305P	P 19980513
			US 1998-109054P	P 19981119
			WO 1999-US10330	W 19990512

ABSTRACT:
Disclosed are particular 3-dimensional structural matrixes containing DNA and their use in the prolonged release of DNA in various biol. environments. The structural matrix is a porous polymer [PLGA]-based containing pores formed by gas foaming involving inert gases (CO2) and leaching out of a water-soluble particulate (salt, NACL, sugar, glucose, sucrose, mannitol) when exposed to body fluids. The admixt. is compression molded into a selected size and shape prior to executing the gas foaming process. The structural matrix may also be an alginate or modified alginate matrix. This structural matrix is a biocompatible or biodegradable matrix. It may also be a lactic acid polymer, glycolic acid polymer or lactic acid/glycolic acid **copolymer** matrix. At least part of this matrix may be comprised of lactic acid/glycolic acid (PLGA) **copolymer** matrix. The structural matrix may be modified where one side section is bonded to one cell interaction mol. such as cell adhesion mols., cell attachment peptides, proteoglycan attachment peptide sequences, proteoglycans, cell adhesion polysaccharides, growth factors, cell adhesion enzymes, RGD peptide, fibronectin, vitronectin, Laminin A, Laminin B1, Laminin B2, collagen 1 and thrombospondin. The DNA-matrix materials are created such that they maintain a defined space, allowing cellular migration, transfection and proliferation to occur in a controlled manner. Such DNA-containing structural matrixes are thus particularly useful in in vivo cell transfection and ***gene*** expression in the context of **gene therapy**. This may encode a protein for stimulating bone progenitors or wound healing in fibroblast or in tissue or organ regeneration or transplantation or an antigen for immunity or cytotoxic or apoptosis-inducing protein or a transcription factor or elongation factor or cell cycle control protein or kinase or phosphatase or DNA repair protein or oncogene or tumor suppressor or angiogenic protein or anti-angiogenic protein or immune response stimulating protein or cell surface receptor or accessory signaling mol. or transport protein or anti-bacterial or anti-viral protein or hormone or neurotransmitter or growth factor or growth factor receptor or interferon or interleukin or chemokine or cytokine or colony stimulating factor or chemotactic factor protein of growth

hormone or parathyroid hormone or PTH1-34 polypeptide or bone morphogenic protein or BMP-2A or BMP-2B or BMP-3 or BMP-4 or BMP-5 or BMP-6 or BMP-7 or BMP-8 or TGF-α or TGF-β1 or TGF-β2 or latent TGFβ binding protein or activin/inhibin protein or FGF or GMCSF or EGF or PDGF or insulin-like growth factor or leukemia inhibitory factor. This method allows for the use in **gene** transfer to cells within a tissue site and in manufacture of a medicament for **gene therapy**. Implantable medical devices comprising this gene-matrix are described. The release of nucleic acids from the matrix is controlled by diffusion. This method also applies to cancer therapy or treating viral infection.

L12 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:614618 CAPLUS
DOCUMENT NUMBER: 131:355989
TITLE: Poly-L-lysine improves gene transfer with **adenovirus** formulated in PLGA microspheres
AUTHOR(S): Matthews, C. B.; Jenkins, G.; Hilfinger, J. M.; Davidson, B. L.
CORPORATE SOURCE: Department of Internal Medicine, University of Iowa College of Medicine, Iowa City, IA, 52242, USA
SOURCE: Gene Therapy (1999), 6(9), 1558-1564
CODEN: GETHEC; ISSN: 0969-7128
PUBLISHER: Stockton Press
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
In vivo gene transfer with recombinant **adenovirus** vectors can be hindered by the immunogenicity of the **adenovirus** capsid proteins. Previous work showed that formulation of the vector with biodegradable polymers such as poly-lactic-glycolic acid (PLGA), polyethylene glycol (PEG), or lipids, may shield the virus from inhibition by neutralizing antibodies. Formulation of **adenovirus** in PLGA microspheres also allowed for extended release in vitro. In expts. described here, we found that the surfactant used in the formation of the primary emulsion could significantly improve the overall yield of virus released. We also tested the effects of adding poly-L-lysine to ***adenovirus*** before encapsulation with PLGA. Our results show that although PLL did not effect the yield of virus encapsulated or released from the microspheres, it significantly improved the efficiency of gene transfer after release from the polymer.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:175163 CAPLUS
DOCUMENT NUMBER: 126:176910
TITLE: Gene preparations
INVENTOR(S): Terada, Masaaki; Ochiya, Takahiro; Miyata, Teruo; Itoh, Hiroshi
PATENT ASSIGNEE(S): Koken Co., Ltd., Japan; Sumitomo Pharmaceuticals Company, Limited; Terada, Masaaki; Ochiya, Takahiro; Miyata, Teruo; Itoh, Hiroshi
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9702047	A1	19970123	WO 1996-JP1824	19960702

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE,

ES, FI, GB, GE, HU, IL, IS, KE, KG, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML

CA 2225998	AA	19970123	CA 1996-2225998	19960702
AU 9662436	A1	19970205	AU 1996-62436	19960702
AU 704694	B2	19990429		
JP 09071542	A2	19970318	JP 1996-171990	19960702
EP 844004	A1	19980527	EP 1996-921138	19960702
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1193916	A	19980923	CN 1996-196463	19960702
PRIORITY APPLN. INFO.:			JP 1995-167744 A	19950703
			WO 1996-JP1824 W	19960702

ABSTRACT:
Gene prepns. comprise desired genes or vectors containing desired genes integrated thereinto and carriers for supporting the same.

=> DIS L14 1- TI
YOU HAVE REQUESTED DATA FROM 23 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 7.49 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L14 ANSWER 1 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Protective immunity against lethal **HSV**-1 challenge in mice by nucleic acid-based immunization with herpes simplex virus type-1 genes specifying glycoproteins gB and gD

L14 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Dendrimers, a new class of candidate topical microbiocides with activity against herpes simplex virus infection

L14 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Sodium lauryl sulfate increases the efficacy of a topical formulation of foscarnet against herpes simplex virus type 1 cutaneous lesions in mice

L14 ANSWER 4 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Polynucleotide compositions for intramuscular and intradermal administration

L14 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Antiviral and immunostimulator polynucleotide duplex and use for treatment of **HSV**-2 infection

L14 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Method using phosphorylated and sulfonated hesperidins, substituted benzenesulfonic acid-formaldehyde **copolymers**, and other compounds for preventing sexually transmitted diseases and for contraceptives

L14 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Method for preventing sexually transmitted diseases

L14 ANSWER 8 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Killer T cell activators

L14 ANSWER 9 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Oral immunization with poly(lactide-co-glycolide) microparticles containing an entrapped recombinant glycoprotein (gD2) from herpes simplex type 2 virus

L14 ANSWER 10 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Cation-type electrodeposition coating method

L14 ANSWER 11 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Tumor delivery vehicles and method to enhance treatment of cystic tumors

L14 ANSWER 12 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Block Polycationic Oligonucleotide Derivative: Synthesis and Inhibition of Herpes Virus Reproduction

L14 ANSWER 13 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Effect of polyanionic compounds on intracutaneous and intravaginal herpesvirus infection in mice: Impact on the search for vaginal microbicides with anti-HIV activity

L14 ANSWER 14 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Aliphatic alcohol for systemic inflammation treatment

L14 ANSWER 15 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Antiviral and immunostimulatory polynucleotide duplex and use thereof

L14 ANSWER 16 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Method and kit for determination of herpes simplex viral antigen by direct binding to polymeric particles with small surface area

L14 ANSWER 17 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Selective depletion of liver and splenic macrophages using liposomes encapsulating the drug dichloromethylene diphosphonate: effects on antimicrobial resistance

L14 ANSWER 18 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Studies on the antitumor effects of N-137

L14 ANSWER 19 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Effect of pyran on latency after herpes simplex virus infections

L14 ANSWER 20 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Effect of pyran on latency after herpes simplex virus infections

L14 ANSWER 21 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Resistance to vaginal or systemic infection with herpes simplex virus type 2

L14 ANSWER 22 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI The role played by water-soluble polymers in paint performance. Part III: Molecular weight and concentration effects in mixed thickener studies

L14 ANSWER 23 OF 23 CAPLUS COPYRIGHT 2004 ACS on STN
TI Synthesis of herpes simplex virus type 1 (**HSV**-1) DNA in isolated nuclei. II. Covalent linkage of RNA to nascent viral DNA

=> DIS L18 1- TI
YOU HAVE REQUESTED DATA FROM 38 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 12.37 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L18 ANSWER 1 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Vaccine compositions containing phospholpid adjuvant against infection and cancer

L18 ANSWER 2 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Characterization and biological evaluation of a microparticle adjuvant formulation for plasmid **DNA vaccines**

L18 ANSWER 3 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Transport of Polymeric Nanoparticle Gene Carriers in Gastric Mucus

L18 ANSWER 4 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Encapsulation of plasmid DNA in PLGA-stearylamine microspheres: A comparison of solvent evaporation and spray-drying methods

L18 ANSWER 5 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI West Nile vaccine

L18 ANSWER 6 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Characterization of a novel adjuvant/delivery system for plasmid **DNA vaccines**

L18 ANSWER 7 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Immunization with low doses of HIV-1 tat DNA delivered by novel cationic block **copolymers** induces CTL responses against Tat

L18 ANSWER 8 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Adjuvant composition for mucosal and injection delivered vaccines

L18 ANSWER 9 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Protective immunity against lethal HSV-1 challenge in mice by nucleic acid-based immunization with herpes simplex virus type-1 genes specifying glycoproteins gB and gD

L18 ANSWER 10 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI In situ Langerhans cell vaccine

L18 ANSWER 11 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Sustained peptide-specific gamma interferon T-cell response in rhesus macaques immunized with human immunodeficiency virus gag **DNA vaccines**

L18 ANSWER 12 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Synthetic vaccine agents

L18 ANSWER 13 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Micellar-type complexes of tailor-made synthetic block **copolymers** containing the HIV-1 tat **DNA** for **vaccine** application

L18 ANSWER 14 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Microparticle-mediated transfection of non-phagocytic cells in vitro

L18 ANSWER 15 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI The development of a microparticulate vector for mucosal delivery of polyelectrolyte **DNA vaccines**

L18 ANSWER 16 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Administration of plasmid DNA associated with PLGA microspheres via the intra-muscular route

L18 ANSWER 17 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Enhanced immune responses induced in rhesus macaques by plasmid DNA delivered on cationic microparticles

L18 ANSWER 18 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Antisense oligonucleotides for MHC class II antigen presenting cells for inhibition of Ii protein expression

L18 ANSWER 19 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Microspheres and adjuvants for **DNA vaccine** delivery

L18 ANSWER 20 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Polynucleotide vaccine adjuvants and formulations containing cationic surfactants, and methods of use

L18 ANSWER 21 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Compositions and methods for inducing activation of dendritic cells

L18 ANSWER 22 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Cationic microparticles are an effective delivery system for immune stimulatory CpG DNA

L18 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Polynucleotide vaccines expressing codon optimized HIV-1 Pol and modified HIV-1 Pol

L18 ANSWER 24 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI pH-responsive polymer microspheres: Rapid release of encapsulated material within the range of intracellular pH

L18 ANSWER 25 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI DNA vaccination by immersion and ultrasound to trout viral hemorrhagic septicaemia virus

L18 ANSWER 26 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI **DNA vaccine** encoding polyepitope immunogen

L18 ANSWER 27 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Poly(lactic acid)-co-(glycolic acid) microsphere formulations for **DNA Vaccines**: II. Cellular and Humoral Immune Responses in mice

L18 ANSWER 28 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Poly(lactic acid-co-glycolic acid) microsphere formulations for **DNA vaccines**: 1. Physico-chemical characterization and release kinetics

L18 ANSWER 29 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Human papilloma virus vaccine formulations

L18 ANSWER 30 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Formulation of poly(dl-lactic-co-glycolic acid) microparticles for rapid plasmid DNA delivery

L18 ANSWER 31 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Cationic microparticles: a potent delivery system for **DNA vaccines**

L18 ANSWER 32 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Polymer particle vaccine delivery system for Helicobacter pylori surface antigen

L18 ANSWER 33 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Polymer adjuvants for use with vector vaccines

L18 ANSWER 34 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Vaccines comprising viral vectors and carbomer adjuvants

L18 ANSWER 35 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Encapsulation of plasmid DNA in biodegradable poly(d,l-lactic-co-glycolic acid) microspheres as a novel approach for immunogene delivery

L18 ANSWER 36 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Protective immunity induced by oral immunization with a rotavirus **DNA vaccine** encapsulated in microparticles

L18 ANSWER 37 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Preparation of polymer microparticles containing low boiling point liquid(s) and diagnostic or therapeutic agents to be used in conjunction with ultrasound

L18 ANSWER 38 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
TI Poly(DL-lactide-co-glycolide)-encapsulated plasmid DNA elicits systemic and mucosal antibody responses to encoded protein after oral administration

=> DIS L18 1- IBIB IABS
YOU HAVE REQUESTED DATA FROM 38 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 101.75 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L18 ANSWER 1 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:589435 CAPLUS
DOCUMENT NUMBER: 141:122331
TITLE: Vaccine compositions containing phospholpid adjuvant against infection and cancer
INVENTOR(S): O'Hagan, Derek
PATENT ASSIGNEE(S): Chiron Corporation, USA
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004060396	A2	20040722	WO 2003-US41412	20031229

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-436919P P 20021227
US 2003-513075P P 20031021

ABSTRACT:
Immunogenic compns. containing phospholipid adjuvants, including microparticle and emulsion compns. According to one aspect of the invention, an immunogenic microparticle composition is provided that comprises: water; a polymer microparticle comprising a biodegradable polymer, e.g., a polymer selected from a poly(α-hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a polyanhydride, and a polycyanoacrylate; an antigen adsorbed to the microparticle; and a phospholipid compound, e.g., a synthetic phospholipid compound comprising: (i) one or more phosphoryl groups independently selected from a phosphato group and a phosphodiester group; (ii) a plurality of linear alkane groups. According to another aspect of the invention an immunogenic emulsion composition is provided that comprises: water; a metabolizable oil; an emulsifying agent; an antigen; and a phospholipid compound, e.g., a synthetic phospholipid compound like that above. The emulsion composition is an oil-in-water emulsion having oil and aqueous phases, in which the oil phase is in the form of oil droplets, substantially all of which are less than 1 μ in diameter The antigen is viral, bacterial, fungal, parasitic or neoplastic antigen.

L18 ANSWER 2 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:536822 CAPLUS
TITLE: Characterization and biological evaluation of a microparticle adjuvant formulation for plasmid **DNA vaccines**
AUTHOR(S): Evans, Robert K.; Zhu, De-Min; Casimiro, Danilo R.; Nawrocki, Denise K.; Mach, Henryk; Troutman, Robert D.; Tang, Aimin; Wu, Shilu; Chin, Stephen; Ahn, Colette; Isopi, Lynne A.; Williams, Donna M.; Xu, Zheng; Shiver, John W.; Volkin, David B.
CORPORATE SOURCE: Department of Vaccine Pharmaceutical Research, Merck Research Laboratories, West Point, PA, 19486, USA
SOURCE: Journal of Pharmaceutical Sciences (2004), 93(7), 1924-1939
CODEN: JPMSAE; ISSN: 0022-3549
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
We describe the physiochem. characterization and immunol. evaluation of plasmid ***DNA*** **vaccine** formulations containing a nonionic triblock ***copolymer*** adjuvant (CRL1005) in the presence and absence of a cationic surfactant, benzalkonium chloride (BAK). CRL1005 forms particles of 1-10 μ upon warming above its phase-transition temperature (.apprx.6-8°C) and the phys. properties of the particles are altered by BAK. **DNA**/CRL1005 ***vaccines*** formulated with and without BAK were evaluated in rhesus macaques to determine the effect of CRL1005 and BAK on the ability of plasmid ***DNA*** to induce a cellular immune response. Immunogenicity results indicate that the addition of CRL1005 to human immunodeficiency virus-1 gag plasmid DNA formulated in phosphate-buffered saline leads to an enhancement in the gag-specific cellular immune response. Moreover, the addition of BAK to human immunodeficiency virus-1 gag plasmid DNA/CRL1005 formulations produces an addnl. enhancement in gag-specific cellular immunity. In vitro characterization studies of DNA/CRL1005 formulations indicate no detectable binding of DNA to CRL1005 particles in the absence of BAK, suggesting that the enhancement of cellular immunity induced by DNA/CRL1005 formulations is not due to enhanced DNA delivery. In the presence of BAK, however, results indicate that BAK binds to CRL1005 particles, producing cationic microparticles that bind DNA through electrostatic interactions. If BAK is present at the phase-transition temperature, it reduces the particle size from .apprx.2 μ to .apprx.300 nm, presumably by binding to hydrophobic surfaces during particle formation. Zeta potential measurements indicate that the surface charge of CRL1005-BAK particles changes from pos. to neg. upon DNA binding, and DNA bound to the surface of CRL1005-BAK particles was visualized by fluorescence microscopy. These results indicate that the addition of BAK to DNA/CRL1005 formulations leads to the formation of .apprx.300 nm CRL1005-BAK-DNA particles that enhance the cellular immune response in rhesus monkeys.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 3 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:105205 CAPLUS
DOCUMENT NUMBER: 140:362782
TITLE: Transport of Polymeric Nanoparticle Gene Carriers in Gastric Mucus
AUTHOR(S): Dawson, Michelle; Krauland, Eric; Wirtz, Denis; Hanes, Justin
CORPORATE SOURCE: Departments of Chemical and Biomolecular Engineering Biomedical Engineering and Materials Science and Engineering, Johns Hopkins University, Baltimore, MD, USA

SOURCE: Biotechnology Progress (2004), 20(3), 851-857
CODEN: BIPRET; ISSN: 8756-7938
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Nanoparticle transport through mucosal barriers is often restricted owing to mucoadhesion and the highly viscoelastic nature of mucus gels, which may limit efficient drug and gene delivery. We formulated sub-200 nm particulates from poly(D,L-lactic-co-glycolic) acid (PLGA) and the cationic surfactant dimethyldioctadecylammonium bromide (DDAB). Subsequently, anionic DNA was condensed to the surface to obtain gene carriers with transfection rates 50-fold higher than those of naked DNA in vitro. Using the method of multiple particle tracking (MPT), we measured the transport rates of dozens of individual PLGA-DDAB/DNA nanoparticles in real time in reconstituted pig gastric mucus (PGM) that possessed physiol. relevant rheol. properties. The average transport rate of PLGA-DDAB/DNA nanoparticles was 10-fold higher than those of similar size polystyrene nanoparticles. Improved transport rates, stability in mucus, and ability to transfect cells make PLGA-DDAB/**DNA** nanoparticles candidates for mucosal **DNA vaccines** and gene therapy.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 4 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:494927 CAPLUS
DOCUMENT NUMBER: 140:31289
TITLE: Encapsulation of plasmid DNA in PLGA-stearylamine microspheres: A comparison of solvent evaporation and spray-drying methods
AUTHOR(S): Atuah, K. N.; Walter, E.; Merkle, H. P.; Alpar, H. O.
CORPORATE SOURCE: School of Pharmacy, University of London, London, WC1N 1AX, UK
SOURCE: Journal of Microencapsulation (2003), 20(3), 387-399
CODEN: JOMIEF; ISSN: 0265-2048
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Stearylamine, a pos. charged hydrophobic mol., was tested as a formulation agent for the encapsulation of a model plasmid in PLGA microspheres. The primary objective was to compare the spray-drying and double emulsion solvent evaporation methods and evaluate their suitability for fabricating PLGA-stearylamine plasmid-entrapped microspheres. A luciferase reporter gene plasmid (pGL3-Con) was formulated into microspheres using a 64 kDa PLGA 50:50 polymer blended with stearylamine (SA) at a range of concns. up to 15%m/m, by the solvent evaporation and spray-drying methods. The microspheres were characterized regarding their size distributions, zeta potentials and morphol. by laser diffraction, electrophoretic mobility and SEM, resp. Formulated plasmid exts. were assessed for phys. damage by agarose gel electrophoresis, and the in vitro biol. activity was determined by transfection of a human embryo kidney epithelial (293) cell line. Size distribution anal. showed that SA reduced the median diams. of spray-dried particles from 8.32 to 3.64 μ, with a corresponding reduction in the spread of the distribution, but solvent evaporation microspheres showed an increased median diameter on addition of SA. Concns. of SA above 10%m/m resulted in disruption of the smooth morphol. of the solvent evaporation particles. There was a SA concentration-dependent tendency in the increase of surface pos. charge and resistance to serum nuclease assault and in vitro expression of luciferase protein. These results show that SA and possibly other charged hydrophobic mols. may be useful agents in the formulation of particulate **DNA vaccines** by both methods.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 5 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:376146 CAPLUS
DOCUMENT NUMBER: 138:384133
TITLE: West Nile vaccine
INVENTOR(S): Chu, Hsien-Jue
PATENT ASSIGNEE(S): Wyeth, John, and Brother Ltd., USA
SOURCE: U.S. Pat. Appl. Publ., 9 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003091595	A1	20030515	US 2002-202716	20020725
WO 2003061555	A2	20030731	WO 2002-US23447	20020723
WO 2003061555	A3	20040415		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1427444	A2	20040616	EP 2002-806585	20020723

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

PRIORITY APPLN. INFO.:	US 2001-308334P	P 20010727
	WO 2002-US23447	W 20020723

ABSTRACT:
The present invention provides a safe and effective vaccine composition against West Nile virus disease. An immunogenically active component of West Nile virus or plasmid **DNA**, an adjuvant such as a metabolizable oil, and a pharmacol. acceptable carrier are formulated into an immunizing **vaccine** . The invention also provides a method for the prevention or amelioration of West Nile disease, such as encephalitis, in horses equidae by administering the vaccine.

L18 ANSWER 6 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:179009 CAPLUS
TITLE: Characterization of a novel adjuvant/delivery system for plasmid **DNA vaccines**
AUTHOR(S): Evans, Robert K.; Mach, Henryk; Zhu, De-Min; Troutman, Robert D.; Casimiro, Danilo R.; Chin, Stephen; Wu, Shilu; Ahn, Colette; Nawrocki, Denise K.; Isopi, Lynne A.; Williams, Donna M.; Volkin, David B.; Shiver, John W.
CORPORATE SOURCE: Vaccine Pharmaceutical Research, Merck & Co, West Point, PA, 19486, USA
SOURCE: Abstracts of Papers, 225th ACS National Meeting, New Orleans, LA, United States, March 23-27, 2003 (2003), BIOT-013. American Chemical Society: Washington, D. C.
CODEN: 69DSA4
DOCUMENT TYPE: Conference; Meeting Abstract

LANGUAGE: English
ABSTRACT:
The non-ionic block **copolymer** CRL1005 has been shown to enhance the immune response induced by plasmid DNA expressing the HIV-1 gag antigen. Formulation of DNA/CRL1005 with benzalkonium chloride (BAK), a cationic surfactant, alters the phys. properties of the formulation and further enhances immunogenicity. We have characterized formulations with and without BAK to identify changes in phys. properties that may account for the difference in immunogenicity, and to identify a 2-8C stable formulation. The results indicate that the addition of BAK to DNA/CRL1005 formulations results in the formation of smaller particles (from 1-2 μ to .apprx.300 nm) with a neg. surface charge. Calorimetry and visible fluorescence microscopy results show that BAK binds to CRL1005 particles and enhances the association of DNA, suggesting increased DNA delivery as a possible mechanism of immunogenicity enhancement. Alternative mechanisms are also discussed, with respect to particle size and surface charge.

L18 ANSWER 7 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:62222 CAPLUS
DOCUMENT NUMBER: 139:399503
TITLE: Immunization with low doses of HIV-1 tat DNA delivered by novel cationic block **copolymers** induces CTL responses against Tat
AUTHOR(S): Caputo, Antonella; Gavioli, Riccardo; Altavilla, Giuseppe; Brocca-Cofano, Egidio; Boarini, Chiara; Betti, Monica; Castaldello, Arianna; Lorenzini, Franco; Micheletti, Fabiola; Cafaro, Aurelio; Sparnacci, Katia; Laus, Michele; Tondelli, Luisa; Ensoli, Barbara
CORPORATE SOURCE: Section of Microbiology, Department of Experimental and Diagnostic Medicine, University of Ferrara, Ferrara, I-44100, Italy
SOURCE: Vaccine (2003), 21(11-12), 1103-1111
CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
Cytotoxic T cell responses are key to the control of intracellular pathogens including HIV-1. In particular, HIV-1 vaccines based on regulatory proteins, such as Tat, are aimed at controlling HIV-1 replication and at blocking disease development by inducing cytotoxic T cell responses. Naked DNA is capable of inducing such responses but it requires several inoculations of high amts. of DNA, and/or prime-boost regimens. Here, we show that a novel class of cationic block **copolymers** protect the DNA from DNAse I digestion, and improve DNA delivery to antigen-presenting cells (APCs) after i.m. vaccination. In particular, three cationic block **copolymers** (K1, K2 and K5) were used to deliver the HIV-1 pCV-tat **DNA vaccine** in BALB/c mice.
The results indicate that vaccination with a very low dose (1 μg) of pCV-tat delivered by the cationic block **copolymer** K2 is safe and, as compared to naked DNA (up to 30 μg), greatly increases the CTL response against Tat, which was detected in all animals in the absence or in the presence of re-stimulation.

REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 8 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:977595 CAPLUS
DOCUMENT NUMBER: 138:44655
TITLE: Adjuvant composition for mucosal and injection delivered vaccines
INVENTOR(S): Gerber, Jay Dean

PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002102305	A2	20021227	WO 2002-US18158	20020611
WO 2002102305	A3	20030403		
WO 2002102305	B1	20030508		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003003105	A1	20030102	US 2001-884201	20010619
US 6676958	B2	20040113		
EP 1404363	A2	20040407	EP 2002-739776	20020611
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003202979	A1	20031030	US 2003-426654	20030501
US 2003211115	A1	20031113	US 2003-431566	20030508
PRIORITY APPLN. INFO.:			US 2001-884201 A	20010619
			WO 2002-US18158 W	20020611

ABSTRACT:
An adjuvant for vaccines comprising lecithin and a polymer, whereby the polymer is preferably polyacrylic acid.

L18 ANSWER 9 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:761954 CAPLUS
DOCUMENT NUMBER: 138:37674
TITLE: Protective immunity against lethal HSV-1 challenge in mice by nucleic acid-based immunization with herpes simplex virus type-1 genes specifying glycoproteins gB and gD
AUTHOR(S): Baghian, Abolghasem; Chouljenko, Vladimir N.; D'Auvergne, Oswald; Newman, Mark J.; Baghian, Salman; Kousoulas, Konstantin G.
CORPORATE SOURCE: Department of Veterinary Microbiology and Parasitology, School of Veterinary Medicine, Louisiana State University, Baton Rouge, LA, 70803, USA
SOURCE: Journal of Medical Microbiology (2002), 51(4), 350-357
CODEN: JMMIAV; ISSN: 0022-2615
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
DNA-based **vaccines** were employed to assess protective immunity against herpes simplex virus in exptl. infections of hairless (strain SKH1) and BALB/c mice. Mice were vaccinated with plasmids containing the herpes simplex virus type-1 (HSV-1) glycoprotein B (gB) or D (gD) genes under the human cytomegalovirus immediate-early promoter control. **Vaccines** were injected i.m. or i.p. as purified **DNA** alone or as formulations supplemented with different non-ionic block **copolymers**. Antibody responses were assessed by immunofluorescence and radio-immunopptn. assays.

Mice inoculated with either gB or gD plasmid, alone or with non-ionic block ***copolymers*** CRL 1029 and CRL 1190, produced high levels of antibodies specific for gB or gD. Three weeks after the last vaccination, mice were challenged with a clin. HSV-1 isolate (ABGK-1) by inoculation of a shaved and subsequently scarified area between the third and fourth lumbar vertebrae. Mice immunized with either gD or gB plasmid alone or mixed with ***copolymers*** were protected against lethal HSV-1 challenge when immunization was performed via the i.m. route. Immunizations given via the i.p. route induced humoral responses in some mice and protected the animals against lethal HSV-1 challenge only when the formulations contained ***copolymers.*** The BALB/c mouse model was shown to be as good a model as the hairless mouse model.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 10 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:716862 CAPLUS
DOCUMENT NUMBER: 137:246531
TITLE: In situ Langerhans cell vaccine
INVENTOR(S): Takashima, Akira; Kumamoto, Tadashi
PATENT ASSIGNEE(S): UT Southwestern Medical Center, USA
SOURCE: U.S. Pat. Appl. Publ., 21 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002131953	A1	20020919	US 2001-808555	20010314
WO 2002072026	A2	20020919	WO 2002-US7645	20020313
WO 2002072026	A3	20030227		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-808555 A 20010314
ABSTRACT:
A method for entrapping migratory antigen presenting cells (APCs) and particularly Langerhans cells (LCs,) in vivo is provided. The method entails creating an artificial gradient of APC-attracting chemotactic factor in the homing path of APCs in vivo. Also provided is a composition for entrapping APCs and particularly, migratory LCs. In addition, a method for loading APCs in situ with antigen is provided. The method comprises entrapping APCs in vivo and subsequently loading the APCs in situ with antigen. Correspondingly, a composition for loading APCs in situ is also provided. Further provided is a method for stimulating the migration of entrapped APCs to draining lymph nodes. The ability to stimulate the migration of entrapped APCs to draining lymph nodes is useful, inter alia, for regulating an immune response in a subject. In addition, an in situ APC-based vaccine is provided which does not require any time-consuming, costly ex vivo manipulations.

L18 ANSWER 11 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:715746 CAPLUS
DOCUMENT NUMBER: 137:231014
TITLE: Sustained peptide-specific gamma interferon T-cell

response in rhesus macaques immunized with human immunodeficiency virus gag **DNA** **vaccines**

AUTHOR(S): Caulfield, Michael J.; Wang, Su; Smith, Jeffrey G.; Tobery, Timothy W.; Liu, Xu; Davies, Mary-Ellen; Casimiro, Danilo R.; Fu, Tong-Ming; Simon, Adam; Evans, Robert K.; Emini, Emilio A.; Shiver, John

CORPORATE SOURCE: Departments of Virus and Cell Biology, Merck Research Laboratories, West Point, PA, 19486, USA

SOURCE: Journal of Virology (2002), 76(19), 10038-10043
CODEN: JOVIAM; ISSN: 0022-538X

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

ABSTRACT:

The authors examined the influence of dose and method of antigen delivery on the dynamics and durability of T-cell responses to candidate human immunodeficiency virus (HIV) vaccines. Codon-optimized sequences from the HIV gag gene were inserted into alternative **DNA vaccine** vectors to express the coding sequence with or without the tissue plasminogen activator leader sequence. The authors delivered the **vaccines** by i.m. injection as plasmid **DNA** without adjuvant or as plasmid **DNA** formulated with a novel block **copolymer** adjuvant (CRL8623) and then monitored the ensuing T-cell responses by using a gamma interferon enzyme-linked immunospot assay. The authors demonstrated persistence of the cell-mediated immune (CMI) response in rhesus macaques for at least 18 mo following a four-dose vaccination regimen. The plasmid vaccine, with or without CRL8623, was immunogenic in macaques; however, the form coadministered with adjuvant exhibited improved T-cell responses, with a bias toward more antigen-specific CD8+ T cells. Finally, the authors examined the fine specificity of the T-cell response to the gag vaccines by testing the response of 23 vaccinated macaques to individual Gag 20-mer peptides. Collectively, the monkeys responded to 25 epitopes, and, on average, each monkey recognized a min. of 2.7 epitopes. The results indicate that a broad and durable CMI response to HIV **DNA** ***vaccines*** can be induced in a relevant nonhuman primate model.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 12 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:658588 CAPLUS

DOCUMENT NUMBER: 137:184455

TITLE: Synthetic vaccine agents

INVENTOR(S): Nielsen, Klaus Gregorius; Koefoed, Peter

PATENT ASSIGNEE(S): Den.

SOURCE: U.S. Pat. Appl. Publ., 16 pp., Cont.-in-part of U.S. Ser. No. 785,215.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002119162	A1	20020829	US 2002-80101	20020219
WO 2001062284	A2	20010830	WO 2001-DK113	20010219
WO 2001062284	A3	20011129		

W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,

RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002185197	A1	20021212	US 2001-785215		20010220
PRIORITY APPLN. INFO.:			WO 2001-DK113	A2	20010219
			US 2001-785215	A2	20010220
			DK 2001-1231	A	20010820
			US 2001-337543P	P	20011022
			DK 2000-265	A	20000221
			US 2000-186295P	P	20000301

ABSTRACT:
The present invention provides for novel immunogens that are comprised of an activated polyhydroxypolymer backbone to which is attached 2 sep. antigenic determinants. The 1st antigenic determinant includes a B-cell or CTL epitope and the 2nd antigenic determinant includes a T-helper epitope. In preferred embodiments, the antigenic determinants are derived from different mols. and species. Exemplary immunogens of the invention are constituted of a linear tresyl-activated dextran backbone to which is coupled B-cell or CTL epitopes of an antigen and to which is also coupled universal T-helper epitopes. Also disclosed are immunogenic compns. comprising the immunogens, methods of immunization and a method for identification of suitable immunogens of the invention. The examples discuss the synthesis of a β-amyloid peptide ***copolymer*** vaccine, antibody titer determination, and assays to monitor CTL activity.

L18 ANSWER 13 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2002:357122 CAPLUS
DOCUMENT NUMBER:	137:293178
TITLE:	Micellar-type complexes of tailor-made synthetic block **copolymers** containing the HIV-1 tat **DNA** for **vaccine** application
AUTHOR(S):	Caputo, Antonella; Betti, Monica; Altavilla, Giuseppe; Bonaccorsi, Angela; Boarini, Chiara; Marchisio, Marco; Butto, Stefano; Sparnacci, Katia; Laus, Michele; Tondelli, Luisa; Ensoli, Barbara
CORPORATE SOURCE:	Department of Experimental and Diagnostic Medicine, Section of Microbiology, University of Ferrara, Ferrara, I-44100, Italy
SOURCE:	Vaccine (2002), 20(17-18), 2303-2317 CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER:	Elsevier Science Ltd.
DOCUMENT TYPE:	Journal
LANGUAGE:	English

ABSTRACT:
A novel class of cationic block **copolymers** constituted by a neutral hydrophilic poly(ethylene glycol) (PEG) block and a pos. charged poly(dimethylamino)ethyl methacrylate block was prepared for delivery of DNA. These block **copolymers** spontaneously assemble with DNA to give in aqueous medium micellar-like structures. Five of these novel block **copolymers** (K1-5), differing in the length of both the PEG chain and the linear charge d. of the poly(dimethylamino)ethyl methacrylate block, were prepared and analyzed for gene delivery, gene expression and safety. All five block ***copolymers*** protected DNA from DNAse I digestion and delivered the DNA into the cell. However, only three of them (K1, K2 and K5) released the DNA at level allowing efficient gene expression into cells. No toxic effects of both the **copolymers** alone or their DNA complexes were observed in vitro or in mice. In addition, **copolymers** were scarcely immunogenic. These results indicate that this novel class of cationic block **copolymers** is safe and possesses the biol. characteristics required for DNA delivery, thus, representing promising vehicles for DNA vaccination.

REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 14 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:350568 CAPLUS
DOCUMENT NUMBER: 138:112170
TITLE: Microparticle-mediated transfection of non-phagocytic cells in vitro
AUTHOR(S): Walter, E.; Merkle, H. P.
CORPORATE SOURCE: Department of Applied Biosciences, Swiss Federal Institute of Technology Zurich (ETH), Zurich, 8057, Switz.
SOURCE: Proceedings - 28th International Symposium on Controlled Release of Bioactive Materials and 4th Consumer & Diversified Products Conference, San Diego, CA, United States, June 23-27, 2001 (2001), Volume 2, 1191-1192. Controlled Release Society: Minneapolis, Minn.
CODEN: 69CNY8
DOCUMENT TYPE: Conference
LANGUAGE: English
ABSTRACT:
The purpose of this study was to check whether **DNA**-loaded cationic microparticles can be used to selectively target phagocytic professional antigen presenting cells (APC) for the delivery of **DNA** ***vaccines.*** A pos. surface charge was provided by incorporating cationic polymers into PLGA and poly(D,L-lactide) (PLA) microparticles. Two cationic polymers were chosen regarding their gene transfer capacity of their complexes with DNA and their ability to deliver DNA from the endosomal compartments to the cytosol of the cells. We checked our microparticle formulations for the transfection efficiency of macrophages (MΦ) and non-phagocytic cells in vitro. Our results support the hypothesis that gene transfer may occur to non-phagocytic cells which express the antigen for further processing in professional APC.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 15 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:350558 CAPLUS
DOCUMENT NUMBER: 138:112283
TITLE: The development of a microparticulate vector for mucosal delivery of polyelectrolyte **DNA vaccines**
AUTHOR(S): Howard, K. A.; Somavarapu, S.; Singh, J.; Atuah, K. N.; Seymour, L. W.; Alpar, H. O.
CORPORATE SOURCE: CRC Institute for Cancer Studies, University of Birmingham, Birmingham, B15 2TT, UK
SOURCE: Proceedings - 28th International Symposium on Controlled Release of Bioactive Materials and 4th Consumer & Diversified Products Conference, San Diego, CA, United States, June 23-27, 2001 (2001), Volume 2, 1171-1172. Controlled Release Society: Minneapolis, Minn.
CODEN: 69CNY8
DOCUMENT TYPE: Conference
LANGUAGE: English
ABSTRACT:
A PLGA microparticulate carrier system containing DNA/PEI polyelectrolyte complexes has been formulated. The structure of polyplexes before and after encapsulation was investigated using electron microscopic and polyanion displacement techniques. Evidence suggests polyplexes are incorporated and released from microparticles as discrete structures. It is envisaged such a system be utilized for the delivery of intact polyplex gene vectors to mucosal sites. The system will be further developed to elicit transgene expression in

these regions.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 16 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:350530 CAPLUS
DOCUMENT NUMBER: 138:112272
TITLE: Administration of plasmid DNA associated with PLGA microspheres via the intra-muscular route
AUTHOR(S): Atuah, K.; Somavarapu, S.; Alpar, H.
CORPORATE SOURCE: Centre for Drug Delivery Research, University of London School of Pharmacy, London, WC1N 1AX, UK
SOURCE: Proceedings - 28th International Symposium on Controlled Release of Bioactive Materials and 4th Consumer & Diversified Products Conference, San Diego, CA, United States, June 23-27, 2001 (2001), Volume 2, 1115-1116. Controlled Release Society: Minneapolis, Minn.
CODEN: 69CNY8
DOCUMENT TYPE: Conference
LANGUAGE: English
ABSTRACT:
Hepatitis B plasmid was co-administered with PLGA microspheres blended with stearylamine to mice via the intra-muscular route. Increasing the electrostatic association of the plasmid and stearylamine-blended microspheres reduced the antibody response, and co-administration of plasmid with microspheres with no stearylamine resulted in IgG levels higher than that of DNA administered alone. The phys. interaction of the plasmid DNA and the microspheres is also reported.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 17 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:350500 CAPLUS
DOCUMENT NUMBER: 138:112261
TITLE: Enhanced immune responses induced in rhesus macaques by plasmid DNA delivered on cationic microparticles
AUTHOR(S): Ugozzoli, M.; Singh, M.; Kazzaz, J.; Briones, M.; Soenawan, E.; Otten, G.; Schaefer, M.; Ulmer, J.; Barnett, S.; Donnelly, J.; O'Hagan, D.
CORPORATE SOURCE: Chiron Corporation, Emeryville, CA, 94608, USA
SOURCE: Proceedings - 28th International Symposium on Controlled Release of Bioactive Materials and 4th Consumer & Diversified Products Conference, San Diego, CA, United States, June 23-27, 2001 (2001), Volume 2, 1055-1056. Controlled Release Society: Minneapolis, Minn.
CODEN: 69CNY8
DOCUMENT TYPE: Conference
LANGUAGE: English
ABSTRACT:
The effectiveness of cationic microparticles with adsorbed DNA at inducing immune responses was investigated in non-human primates. Plasmid **DNA** ***vaccine*** adsorbed onto the surface of cationic poly lactide-co-glycolide (PLG) microparticles were shown to be substantially more potent than naked ***DNA.*** The enhancement of the cellular and humoral responses found in primates immunized with PLG/**DNA** microparticles suggests that the technol. can be successfully utilized to delivery **DNA** ***vaccines*** in human.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 18 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:271955 CAPLUS
DOCUMENT NUMBER: 136:308521
TITLE: Antisense oligonucleotides for MHC class II antigen presenting cells for inhibition of Ii protein expression
INVENTOR(S): Xu, Minzhen; Qiu, Gang; Humphreys, Robert
PATENT ASSIGNEE(S): Antigen Express, Inc., USA
SOURCE: U.S., 36 pp., Cont.-in-part of U.S. Ser. No. 36,746, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6368855	B1	20020409	US 1998-205995	19981204
US 5726020	A	19980310	US 1996-661627	19960611
WO 2000034467	A1	20000615	WO 1999-US28096	19991124
W: AU, CA, CN, JP, KR				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1135482	A1	20010926	EP 1999-961831	19991124
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002531582	T2	20020924	JP 2000-586901	19991124
AU 771580	B2	20040325	AU 2000-18329	19991124
US 2003054365	A1	20030320	US 2002-54387	20020122

PRIORITY APPLN. INFO.:		
US 1996-661627	A1	19960611
US 1998-36746	B2	19980309
US 1998-205995	A	19981204
WO 1999-US28096	W	19991124

ABSTRACT:
Disclosed is a specific regulator of Ii protein (class II antigen invariant chain) gene expression or immunoregulatory function. Specifically disclosed are several forms of the specific regulator of Ii, including those which function through the formation of a duplex mol. with an RNA mol. encoding mammalian Ii protein to inhibit Ii protein synthesis at the translation level. This class includes **copolymers** comprised of nucleotide bases which hybridize specifically to the RNA mol. encoding mammalian Ii protein, and also expressible reverse gene constructs. In other aspects, the disclosure relates to MHC class II-pos. antigen presenting cells containing a specific regulator of Ii expression. Such cells are useful, for example, in the display of autodeterminant peptides in association with MHC class II proteins. Compns. of the invention find application in methods for treating diseases, for example malignancies and autoimmune disorders, in a patient by enhancing immunol. attack on undesired cells. An addnl. application is the isolation of autodeterminant peptides from a cell. RNAse H mapping was used to identify sites on the Ii mRNA that are accessible to antisense oligonucleotides. Use of phosphorothioate oligonucleotides is demonstrated in vitro. The most effective of the antisense oligonucleotides was used to inhibit Ii gene expression in the sarcoma cell line SaI in which MHCII antigen gene expressed was increased by overexpression of the CIITA gene. Formaldehyde fixed Ii-deficient cells were used to inoculate mice. Mice challenged with 20+105 SaI cells did not develop tumors.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 19 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:51240 CAPLUS

DOCUMENT NUMBER: 136:107525
TITLE: Microspheres and adjuvants for **DNA** **vaccine** delivery
INVENTOR(S): Johnson, Mark E.; Mossman, Sally; Cecil, Tricia; Evans, Lawrence
PATENT ASSIGNEE(S): Corixa Corporation, USA
SOURCE: PCT Int. Appl., 60 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002003961	A1	20020117	WO 2001-US21780	20010709
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002032165	A1	20020314	US 2001-901829	20010709
EP 1299087	A1	20030409	EP 2001-951039	20010709
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004502721	T2	20040129	JP 2002-508416	20010709
US 2004009941	A1	20040115	US 2003-420482	20030422
PRIORITY APPLN. INFO.:			US 2000-216604P	P 20000707
			US 2001-901829	B3 20010709
			WO 2001-US21780	W 20010709

ABSTRACT:
A nucleic acid delivery system that offers, in one system, a combination of high encapsulation efficiency, rapid release kinetics and preservation of DNA in a supercoiled form is provided. The nucleic delivery system comprises nucleic acid mols., such as a **DNA**, encapsulated in biodegradable microspheres, and is particularly suited for delivery of **DNA** ***vaccines.*** The invention further provides an adjuvant for modulating the immunostimulatory efficacy of microspheres encapsulating nucleic acid mols. comprising an aminoalkyl glucosaminide 4-phosphate (AGP). Thus, a quick release, high efficiency, porous, 1-10 μm DNA microsphere formulation was developed by using PLG **copolymer** and tested. Cytotoxic T-lymphocyte (CTL) responses to 2 antigens, Her-2/neu and TbH9, were generated using these DNA microspheres. I.m. and i.p. routes were the best for CTL elicitation. Several AGPs provided substantial CTL adjuvant activity to the DNA microspheres. Sodium.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 20 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:10648 CAPLUS
DOCUMENT NUMBER: 136:74556
TITLE: Polynucleotide vaccine adjuvants and formulations containing cationic surfactants, and methods of use
INVENTOR(S): Evans, Robert K.
PATENT ASSIGNEE(S): Merck & Co., Inc., USA
SOURCE: PCT Int. Appl., 83 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002000844	A2	20020103	WO 2001-US20200	20010622
WO 2002000844	A3	20030612		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001070147	A5	20020108	AU 2001-70147	20010622
EP 1335953	A2	20030820	EP 2001-948699	20010622
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.:		
US 2000-213622P	P	20000623
US 2000-214824P	P	20000628
WO 2001-US20200	W	20010622

ABSTRACT:
Improved polynucleotide vaccine adjuvants and related polynucleotide vaccine formulations are disclosed which are useful in prophylactic or therapeutic vaccine and/or gene therapy-based applications. These adjuvants comprise a block **copolymer**, i.e., CRL 1005, and a cationic surfactant component, selected from benzalkonium chloride (BAK), benzethonium chloride, cetramide, cetylpyridonium chloride, and cetyl trimethylammonium chloride. The inclusion of a cationic surfactant results in an increased percentage of polynucleotide that is phys. associated with the adjuvant in vitro, resulting in enhanced in vivo immune responses to polynucleotide vaccines. For example, the immune response induced by DNA/BAK formulations containing CRL 1005 in monkeys was stronger and appeared earlier than the immune response induced by DNA/BAK formulations lacking CRL 1005 or by DNA/CRL 1005 formulations lacking BAK. Also, DNA/BAK/CRL 1005 formulations were more effective than DNA in PBS at priming the immune response for adenovirus boost in monkeys.

L18 ANSWER 21 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:816863 CAPLUS
DOCUMENT NUMBER: 135:370620
TITLE: Compositions and methods for inducing activation of dendritic cells
INVENTOR(S): Kabanov, Alexander V.; Lemieux, Pierre; Guerin, Nadia; Alakhov, Valery; Vinogradov, Serguie
PATENT ASSIGNEE(S): Supratek Pharma, Inc., Can.
SOURCE: PCT Int. Appl., 126 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001083698	A2	20011108	WO 2001-US13921	20010430
WO 2001083698	A3	20020221		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,				

RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 2001074815	A5	20011112	AU 2001-74815		20010430
EP 1283727	A2	20030219	EP 2001-941463		20010430
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2004509838	T2	20040402	JP 2001-580308		20010430
PRIORITY APPLN. INFO.:			US 2000-200487P	P	20000428
			US 2001-260806P	P	20010101
			WO 2001-US13921	W	20010430

ABSTRACT:
Compns. induce the activation of dendritic cells comprising a polynucleotide, such as viruses, RNA, DNA, plasmid DNA, or derivs. thereof and at least one block **copolymer** of alkylethers. The present invention further relates to compns. for inducing the activation of dendritic cells wherein the block **copolymers** are PLURONIC F127 and L61. More particularly, the compns. comprise block **copolymers** PLURONIC F127/PLURONIC L61. The invention also relates to methods of inducing the activation of dendritic cells in animals comprising administering the compns. of the invention. Addnl., the present invention relates to methods of increasing the immune response of animals comprising administering the compns. of the present invention.

L18 ANSWER 22 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2001:800235 CAPLUS
DOCUMENT NUMBER:	137:24222
TITLE:	Cationic microparticles are an effective delivery system for immune stimulatory CpG DNA
AUTHOR(S):	Singh, Manmohan; Ott, Gary; Kazzaz, Jina; Ugozzoli, Mildred; Briones, Maylene; Donnelly, John; O'Hagan, Derek T.
CORPORATE SOURCE:	Immunology and Infectious Diseases, Chiron Corporation, Emervville, CA, 94608, USA
SOURCE:	Pharmaceutical Research (2001), 18(10), 1476-1479 CODEN: PHREEB; ISSN: 0724-8741
PUBLISHER:	Kluwer Academic/Plenum Publishers
DOCUMENT TYPE:	Journal
LANGUAGE:	English

ABSTRACT:
An experiment was conducted to improve the potency of CpG as a vaccine adjuvant using a delivery system to promote the uptake and delivery of CpG into APCs. The experiment also investigated the potential of cationic poly lactide-coglycolide microparticles (PLG/CpG) to induce enhanced antibody and cytotoxic T lymphocyte (CTL) responses to p55 gag and gp120 env from HIV-1 following i.m. immunization in mice. Results indicate that cationic PLG microparticles may represent an enabling technol. for CpG DNA adjuvants to be used in combination with HIV-1 p55 gag and env gp120 antigens. The need for effective delivery systems for CpG DNA adjuvants may prove to be a common observation for a wide range of antigens.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:	2001:472528 CAPLUS
DOCUMENT NUMBER:	135:75733
TITLE:	Polynucleotide vaccines expressing codon optimized HIV-1 Pol and modified HIV-1 Pol
INVENTOR(S):	Shiver, John W.; Perry, Helen C.; Casimiro, Danilo R.; Fu, Tong-ming
PATENT ASSIGNEE(S):	Merck & Co., Inc., USA

SOURCE: PCT Int. Appl., 115 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001045748	A1	20010628	WO 2000-US34724	20001221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1242124	A1	20020925	EP 2000-989347	20001221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003520786	T2	20030708	JP 2001-546687	20001221
US 2004063653	A1	20040401	US 2002-168217	20020930
PRIORITY APPLN. INFO.:			US 1999-171542P P	19991222
			WO 2000-US34724 W	20001221

ABSTRACT:
Pharmaceutical compns. which comprise HIV Pol **DNA vaccines** are disclosed, along with the production and use of these **DNA** ***vaccines.*** The pol-based **DNA vaccines** of the invention are administered directly introduced into living vertebrate tissue, preferably humans, and preferably express inactivated versions of the HIV Pol protein devoid of protease, reverse transcriptase activity, RNase H activity and integrase activity, inducing a cellular immune response which specifically recognizes human immunodeficiency virus-1 (HIV-1). The **DNA** mols. which comprise the open reading frame of these **DNA vaccines** are synthetic **DNA** mols. encoding codon optimized HIV-1 Pol and codon optimized inactive derivs. of optimized HIV-1 Pol, including **DNA** mols. which encode inactive Pol proteins which comprise an amino terminal leader peptide.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 24 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:374306 CAPLUS
DOCUMENT NUMBER: 135:277852
TITLE: pH-responsive polymer microspheres: Rapid release of encapsulated material within the range of intracellular pH
AUTHOR(S): Lynn, David M.; Amiji, Mansoor M.; Langer, Robert
CORPORATE SOURCE: Department of Chemical Engineering, Massachusetts Institute of Technology, Cambridge, MA, 02139, USA
SOURCE: Angewandte Chemie, International Edition (2001), 40(9), 1707-1710
CODEN: ACIEF5; ISSN: 1433-7851
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
It was reported that microspheres formed from 4,4'-Trimethylenedipiperidine-butylene diacrylate **copolymer** (I) release their encapsulated contents rapidly and quant. in the range of intracellular pH values. The size distribution of the spheres considered (4-6μm) rendered suitable for

delivery to phagocytotic cells such as macrophages. The preliminary evidence indicating the internalization and processing of I microspheres by macrophages was presented. The double emulsion process was feasible for the encapsulation of water-soluble compds. using I. The size distributions of microspheres formed from I correlated well with the distributions of poly(lactic-co-glycolic acid) (PLGA) microspheres within 5-30μm. The degradation of I at pH 7.4 was relatively slow and that 85-90% of encapsulated material could be retained in the polymer matrix for long period of time at physiol. pH values. Cell membrane translocation and escape from acidic intracellular vesicles represent substantial obstacles to efficient delivery by endocytosis or phagocytosis. The particles formed from I could be internalized by phagocytosis and that particle rupture occurred more readily inside the cell than for PLGA microspheres. Thus, I can be used to encapsulate a water-soluble polymer, retain the material at extracellular or cytoplasmic pH values, and release the encapsulated contents in the range of endosomal/lysosomal pH values. The incorporation of degradable, pH-sensitive materials such as I could be use in designing a new **DNA**-based **vaccine** formulations targeted to macrophages.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 25 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:275387 CAPLUS
DOCUMENT NUMBER: 136:116943
TITLE: DNA vaccination by immersion and ultrasound to trout viral hemorrhagic septicaemia virus
AUTHOR(S): Fernandez-Alonso, M.; Rocha, A.; Coll, J. M.
CORPORATE SOURCE: MG y Biotecnologia, Crta Coruna km 7.5, INIA, Madrid, 28040, Spain
SOURCE: Vaccine (2001), 19(23-24), 3067-3075
CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
This work reports preliminary data on the application of a novel method, ultrasound, for the DNA vaccination of rainbow trout. First, the best formulations were selected that increased the transfer by immersion of a plasmid coding for the green fluorescent protein (GFP) gene into trout fry. Quantification of GFP expression by fluorescence in the fin cells was used to study time course, DNA concentration dependence, and comparison of different formulations. The best GFP expression results were obtained with short pulses of ultrasound, DOTAP liposomes, and recombinant bacteria or bactofection. Other liposomes or microencapsulation formulations resulted in a GFP fluorescence similar to background values. Second, DNA immersion-vaccination of immunocompetent fingerling trout with the selected formulations was performed by using a plasmid coding for the glycoprotein G gene of the viral hemorrhagic septicemia virus (VHSV). The immunization of fingerling trout was estimated by measuring humoral antibody, lymphoproliferation and VHSV challenge responses. Short pulses of low intensity ultrasound were the only method by which both humoral antibody responses and survival after VHSV challenge were obtained. Immersion DNA-vaccination using short pulses of ultrasound could eventually lead to a practical way to vaccinate small fish.

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 26 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:208139 CAPLUS
DOCUMENT NUMBER: 134:251190
TITLE: **DNA vaccine** encoding polyepitope immunogen
INVENTOR(S): Hedley, Mary Lynne; Urban, Robert C.; Chicz, Roman M.

PATENT ASSIGNEE(S): Zycos Inc., USA
SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001019408	A1	20010322	WO 2000-US25559	20000918
WO 2001019408	C2	20021205		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1214097	A1	20020619	EP 2000-965119	20000918
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003509035	T2	20030311	JP 2001-523039	20000918

PRIORITY APPLN. INFO.:			
US 1999-154665P	P	19990916	
US 1999-398534	A2	19990916	
US 1999-169846P	P	19991209	
US 1999-458173	A2	19991209	
WO 2000-US25559	W	20000918	

ABSTRACT:
The authors disclose the preparation and biol. activity of a chimeric immunogen for DNA vaccination. The immunogen is encoded by nucleic acid representing multiple epitopes of either tumor or viral antigens. In one example, an immunogen was prepared from MHC class I-restricted epitopes of E6 and E7 proteins of human papillomavirus. The chimeric immunogen, when administered to HLA-A2-transgenic mice by microsphere-encapsulated DNA, induced an antigen-specific cytotoxic T-cell response to papillomavirus.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 27 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:672359 CAPLUS
DOCUMENT NUMBER: 134:136571
TITLE: Poly(lactic acid)-co-(glycolic acid) microsphere formulations for **DNA Vaccines**: II. Cellular and Humoral Immune Responses in mice
AUTHOR(S): McKeever, U.; Hao, T.; Zeng, W.; Hsu, Y-Y.; Lunsford, L.; Barman, S.; Hedley, M. L.
CORPORATE SOURCE: Zycos Inc., Cambridge, MA, 02138, USA
SOURCE: Proceedings of the International Symposium on Controlled Release of Bioactive Materials (2000), 27th, 868-869
CODEN: PCRMEY; ISSN: 1022-0178
PUBLISHER: Controlled Release Society, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The study suggested the therapeutic value of the inclusion of the proprietary excipient, poly(lactic acid-co-glycolic acid), in a microsphere formulation for ***DNA*** **vaccine** delivery. Cellular and humoral Immune Responses in mice given a single injection of 30 μg encapsulated DNA with an excipient are reproducible stronger than those in mice receiving similar injection of

encapsulated DNA without the excipients.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 28 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:672358 CAPLUS
DOCUMENT NUMBER: 134:136570
TITLE: Poly(lactic acid-co-glycolic acid) microsphere formulations for **DNA vaccines**: 1. Physico-chemical characterization and release kinetics
AUTHOR(S): Barman, S.; Hsu, Y.; Lunsford, L.; Hao, T.; Chambers, P.; Mckeever, U.; Hedley, M. L.
CORPORATE SOURCE: Zycos, Inc., Cambridge, MA, 02138, USA
SOURCE: Proceedings of the International Symposium on Controlled Release of Bioactive Materials (2000), 27th, 866-867
CODEN: PCRMEY; ISSN: 1022-0178
PUBLISHER: Controlled Release Society, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
The optimized 1-g batch microsphere maintained the percent supercoiling of the input DNA for the formulations used. The size distributions were <10 μm.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 29 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:553437 CAPLUS
DOCUMENT NUMBER: 133:155384
TITLE: Human papilloma virus vaccine formulations
INVENTOR(S): Volkin, David B.; Shi, Li; Mach, Henryk
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2000045841	A2	20000810	WO 2000-US2463		20000201
WO 2000045841	A3	20001214			
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
EP 1150712	A2	20011107	EP 2000-905886		20000201
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
JP 2002536340	T2	20021029	JP 2000-596960		20000201
AU 764138	B2	20030814	AU 2000-27492		20000201
US 6251678	B1	20010626	US 2000-496812		20000202
PRIORITY APPLN. INFO.:			US 1999-118723P	P	19990205
			WO 2000-US2463	W	20000201

ABSTRACT:
New human papilloma virus (HPV) vaccine formulations exhibit enhanced long-term

stability. Formulation components can include: virus-like particles (VLPs) adsorbed onto aluminum, a salt, non-ionic surfactant, and a buffer. Addnl. formulations also contain a polymeric polyanionic stabilizer and a salt either in the presence or absence buffering agents and nonionic detergent.

L18 ANSWER 30 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:199702 CAPLUS
DOCUMENT NUMBER: 133:109803
TITLE: Formulation of poly(dl-lactic-co-glycolic acid) microparticles for rapid plasmid DNA delivery
AUTHOR(S): Tinsley-Bown, A. M.; Fretwell, R.; Dowsett, A. B.; Davis, S. L.; Farrar, G. H.
CORPORATE SOURCE: Centre for Applied Microbiology and Research, Salisbury, Wiltshire, UK
SOURCE: Journal of Controlled Release (2000), 66(2-3), 229-241
CODEN: JCREEC; ISSN: 0168-3659
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
An optimized water-in-oil-in-water double emulsion process for the microencapsulation of plasmid DNA in poly(DL-lactic-co-glycolic acid) (PLGA) was used to prepare microparticles from a range of different PLGA formulations. This process was developed using by pharmaceutically accepted solvents and is potentially scaleable. Incorporation of plasmid DNA in the microparticles of up to 11 μg/mg was obtained and the retention of plasmid DNA integrity was considerably greater than previously reported. Microparticle structure was determined, by SEM, to be hollow and size distribution characteristics were found to be independent of polymer formulation. The ability to vary the plasmid DNA release profile by changing the PLGA formulation and polymer concentration used in the
encapsulation process was also demonstrated. This ability to control the release profile of the microparticles was shown to be especially important as the phys. integrity of the encapsulated plasmid DNA deteriorated with extended release times in vitro.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 31 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:82247 CAPLUS
DOCUMENT NUMBER: 132:255831
TITLE: Cationic microparticles: a potent delivery system for **DNA vaccines**
AUTHOR(S): Singh, Manmohan; Briones, Maylene; Ott, Gary; O'Hagan, Derek
CORPORATE SOURCE: Chiron Vaccines, Chiron Corporation, Emeryville, CA, 94608, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2000), 97(2), 811-816
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
An approach involving the preparation of biodegradable microparticles with a cationic surface was developed to improve the delivery of adsorbed DNA into antigen-presenting cells after i.m. injection. The microparticles released intact and functional DNA over 2 wk in vitro. In addition, the microparticles induced higher levels of marker gene expression in vivo. After i.m. immunization, the microparticles induced significantly enhanced serum antibody responses in comparison to naked DNA. Moreover, the level of antibodies induced by the microparticles was significantly enhanced by the addition of a

vaccine adjuvant, aluminum phosphate. In addition, in contrast to naked DNA, the cationic microparticles induced potent cytotoxic T lymphocyte responses at a low dose.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 32 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:672604 CAPLUS
DOCUMENT NUMBER: 131:314175
TITLE: Polymer particle vaccine delivery system for Helicobacter pylori surface antigen
INVENTOR(S): Carlsson, Hans; Larsson, Anette; Soderlind, Erik
PATENT ASSIGNEE(S): Astra Aktiebolag, Swed.
SOURCE: PCT Int. Appl., 83 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9952550	A1	19991021	WO 1999-SE582	19990409
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9940662	A1	19991101	AU 1999-40662	19990409
AU 765118	B2	20030911		
EP 1071457	A1	20010131	EP 1999-924075	19990409
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002516822	T2	20020611	JP 2000-543160	19990409
PRIORITY APPLN. INFO.:			SE 1998-1288 A	19980414
			WO 1999-SE582 W	19990409

ABSTRACT:
The present invention concerns polymer particle vaccine delivery systems in which a water insol. protein antigen, e.g. a lipidated HpaA protein, is incorporated with particles comprising a polymer matrix. The present invention also concerns a method for incorporating such a water insol. protein antigen with a polymer matrix in order to produce a polymer particle vaccine delivery system. In addition, the invention also provides a vaccine composition comprising the
polymer particle delivery system. The vaccine can be used to treat and/or reduce the risk of for example Helicobacter infection.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 33 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:659270 CAPLUS
DOCUMENT NUMBER: 131:298650
TITLE: Polymer adjuvants for use with vector vaccines
INVENTOR(S): Audonnet, Jean-christophe Francis; Minke, Jules Maarten
PATENT ASSIGNEE(S): Merial, Fr.
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9951269	A1	19991014	WO 1999-FR666	19990322
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
FR 2776928	A1	19991008	FR 1998-4409	19980403
FR 2776928	B1	20000623		
CA 2327389	AA	19991014	CA 1999-2327389	19990322
AU 9928448	A1	19991025	AU 1999-28448	19990322
AU 744964	B2	20020307		
BR 9909342	A	20001212	BR 1999-9342	19990322
EP 1066055	A1	20010110	EP 1999-909069	19990322
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002510651	T2	20020409	JP 2000-542039	19990322

PRIORITY APPLN. INFO.: FR 1998-4409 A 19980403
WO 1999-FR666 W 19990322

ABSTRACT:
Polymer adjuvants that increase the efficacy of vector vaccines carrying an expression cassette for an antigen gene of a pathogen are described. The polymers are acrylic or methacrylic polymers and the maleic anhydride ***copolymers*** and alkenyl derivative The adjuvant compound is preferably a carbomer or an EMA®. Construction of expression vectors for a number viral antigen genes were constructed using the com. expression vector pVR1012 is described. Inoculation of horses, swine, cattle, and dogs with these vectors with Carbopol 974P as an adjuvant is demonstrated. Use of the adjuvant led to the appearance of antibody to the antigens.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 34 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:576806 CAPLUS
DOCUMENT NUMBER: 131:227653
TITLE: Vaccines comprising viral vectors and carbomer adjuvants
INVENTOR(S): Audonnet, Jean-christophe Francis; Minke, Jules Maarten
PATENT ASSIGNEE(S): Merial, Fr.
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9944633	A1	19990910	WO 1999-FR453	19990301
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,				

MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

FR 2775601	A1	19990910	FR 1998-2800	19980303
FR 2775601	B1	20010921		
CA 2321903	AA	19990910	CA 1999-2321903	19990301
AU 9932571	A1	19990920	AU 1999-32571	19990301
AU 762479	B2	20030626		
BR 9908496	A	20001205	BR 1999-8496	19990301
EP 1058558	A1	20001213	EP 1999-937879	19990301
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002505300	T2	20020219	JP 2000-534234	19990301
NZ 506370	A	20030725	NZ 1999-506370	19990301
ZA 9901662	A	20001012	ZA 1999-1662	19990302
US 6713068	B1	20040330	US 2000-622951	20001017
PRIORITY APPLN. INFO.:			FR 1998-2800 A	19980303
			WO 1999-FR453 W	19990301

ABSTRACT:
The invention concerns a recombinant live vaccine comprising a viral vector incorporating and expressing in vivo a heterologous nucleotide sequence, preferably a pathogenic agent gene, and at least a adjuvant compound selected among acrylic or methacrylic polymers and **copolymers** of maleic anhydride and alkenyl derivs. Preferred are acrylic and methacrylic acid polymers cross-linked with a sugar or polyalc. polyalkenyl ether (carbomer), especially those crosslinked with allylsaccharose or with allylpentaerythritol. ***Copolymers*** of maleic anhydride and ethylene crosslinked with divinylether can also be used. Thus, canarypox virus vectors containing equine herpesvirus 1 genes for glycoproteins gB, gC and gD were prepared Vaccines comprising these vectors and Carbopol 974P were used in immunization of horses. Presence of adjuvant resulted in increased antibody titer and decreased excretion of virus relative to controls.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 35 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:808560 CAPLUS
DOCUMENT NUMBER: 130:286948
TITLE: Encapsulation of plasmid DNA in biodegradable poly(d,l-lactic-co-glycolic acid) microspheres as a novel approach for immunogene delivery
AUTHOR(S): Wang, Daqing; Robinson, Deborah R.; Kwon, Glen S.; Samuel, John
CORPORATE SOURCE: Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta, Edmonton, AB, T6G 2N8, Can.
SOURCE: Journal of Controlled Release (1999), 57(1), 9-18
CODEN: JCREEC; ISSN: 0168-3659
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
A plasmid DNA encoding bacterial β-galactosidase gene was encapsulated in poly(dl-lactic-co-glycolic acid) (PLGA) microspheres. Plasmid DNA extracted from PLGA microspheres retained both structural and functional integrity as evidenced by its restriction endonuclease digestion pattern and its ability to transfect COS-1 cells in vitro. PLGA microspheres protected plasmid DNA from digestion by DNase I (DNase I) in vitro. The encapsulation efficiency of plasmid DNA and its release rate depended on the mol. weight of PLGA. Lastly, J-774A macrophages phagocytosed PLGA microspheres loaded with plasmid DNA. Co-encapsulated monophosphoryl lipid A increased the rate of phagocytosis.

These results suggest that biodegradable PLGA microspheres can deliver intact and functional plasmid DNA at controlled rates. Thus, PLGA microspheres may be used to jointly deliver genes and other biol. active mols., e.g., immunomodulators, to antigen presenting cells.

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 36 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:395629 CAPLUS
DOCUMENT NUMBER: 129:140513
TITLE: Protective immunity induced by oral immunization with a rotavirus **DNA vaccine** encapsulated in microparticles
AUTHOR(S): Chen, Shing C.; Jones, David H.; Fynan, Ellen F.; Farrar, Graham H.; Clegg, J. Christopher S.; Greenberg, Harry B.; Herrmann, John E.
CORPORATE SOURCE: Division of Infectious Diseases and Immunology, University of Massachusetts Medical School, Worcester, MA, 01655, USA
SOURCE: Journal of Virology (1998), 72(7), 5757-5761
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:

DNA vaccines are usually given by i.m. injection or by gene gun delivery of **DNA**-coated particles into the epidermis. Induction of mucosal immunity by targeting **DNA vaccines** to mucosal surfaces may offer advantages, and an oral **vaccine** could be effective for controlling infections of the gut mucosa. In a murine model, we obtained protective immune responses after oral immunization with a rotavirus VP6 ***DNA*** **vaccine** encapsulated in poly(lactide-coglycolide) (PLG) microparticles. One dose of vaccine given to BALB/c mice elicited both rotavirus-specific serum antibodies and intestinal IgA. After challenge at 12 wk postimmunization with homologous rotavirus, fecal rotavirus antigen was significantly reduced compared with controls. Earlier and higher fecal rotavirus-specific IgA responses were noted during the peak period of viral shedding, suggesting that protection was due to specific mucosal immune responses. The results obtained with PLG-encapsulated rotavirus VP6 ***DNA*** demonstrate protection against an infectious agent elicited after oral administration of a **DNA vaccine**.

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 37 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:338151 CAPLUS
DOCUMENT NUMBER: 129:25412
TITLE: Preparation of polymer microparticles containing low boiling point liquid(s) and diagnostic or therapeutic agents to be used in conjunction with ultrasound
INVENTOR(S): Luders, Frank; Hannig, Jana
PATENT ASSIGNEE(S): Schering A.-G., Germany; Luders, Frank; Hannig, Jana
SOURCE: PCT Int. Appl., 13 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9820904	A2	19980522	WO 1997-EP6256	19971104

WO 9820904 A3 19981001
W: US
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
DE 19648663 A1 19980528 DE 1996-19648663 19961114
PRIORITY APPLN. INFO.: DE 1996-19648663 19961114
ABSTRACT:
The invention concerns microparticles filled with a low b.p. liquid, or mixture of liqs. and diagnostic or therapeutic agents; the microparticles are used for targeted delivery and the release is initiated by ultrasound. The synthetic polymer capsules are prepared below the b.p. of the enclosed liquid The capsules ensure that there is no release of the content before ultrasound is applied; when ultrasound is applied above the b.p. of the liquid, the vapor pressure enhances the bursting power of the gas bubbles inside the particles and the content of the capsules is released. Microparticles are 0.05-7 μm for IV and <50 μm for non IV (oral, intravesical) application. Plasticizers are used for the in situ polymerization; polymerization is performed in water or in tenside
containing dispersion media; crosslinking inhibitors are added for controlling the rate of polymerization The capsules can contain one or more drugs, **DNA**, RNA, proteins, stains, X-ray or NMR contrast agents, cytostatics, hormones, enzymes or **vaccines**. For the preparation of ultrasound contrast agents osmotically active agents are added to ensure isotonia. Thus to a solution containing
1% Triton X-100 and 1% Zonyl FSO100 (pH 7) perfluorpentane was added and the emulsion was stirred at 10°C; thereafter butylcyanacrylate containing 0.3% SO2 was added drop by drop. After stirring further for 2 h. NaCl was added to achieve an isotonic suspension. The suspension was administered to a Wistar Han rat; ultrasound imaging showed a clear contrast enhancement in liver, kidney, vena hepatica and vena cava inferior.

L18 ANSWER 38 OF 38 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:473810 CAPLUS
DOCUMENT NUMBER: 127:152859
TITLE: Poly(DL-lactide-co-glycolide)-encapsulated plasmid DNA elicits systemic and mucosal antibody responses to encoded protein after oral administration
AUTHOR(S): Jones, D. H.; Corris, S.; McDonald, S.; Clegg, J. C. S.; Farrar, G. H.
CORPORATE SOURCE: Centre Applied Microbiology Research, Salisbury, SP4 0JG, UK
SOURCE: Vaccine (1997), 15(8), 814-817
CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
ABSTRACT:
We have developed a method for the encapsulation of plasmid DNA in poly(DL-lactide-co-glycolide) microparticles. Encapsulated DNA, expressing the insect protein luciferase under the transcriptional control of the human cytomegalovirus immediate early promoter, was administered to mice by i.p. injection or oral gavage. I.p. injection of encapsulated DNA elicited good serum IgG and IgM responses, and a modest IgA response. Oral administration stimulated good serum antibody responses in all three classes, and in addition, significant levels of mucosal IgA. PLG encapsulation thus has the ability to protect plasmid DNA against degradation after administration, and to facilitate its uptake into appropriate cells for the subsequent expression and presentation of antigen, in such a way as to elicit both systemic and mucosal antibody responses. These findings may have major implications for the design of novel vaccines and delivery strategies.

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=> DNA (l) vaccine
L1        15238 DNA (L) VACCINE

=> cosmid and L1
L2           68 COSMID AND L1

=> gold and L2
L3            0 GOLD AND L2

=> Gene (w) gun
L4         1078 GENE (W) GUN

=> L4 and L2
L5            0 L4 AND L2

=> carrier and L2
L6           10 CARRIER AND L2

=> metal and L2
L7            0 METAL AND L2

=> particle and L2
L8            3 PARTICLE AND L2

=> bombardment and L2
L9            0 BOMBARDMENT AND L2

=> powderject and L2
L10           0 POWDERJECT AND L2

=> D L6 IBIB ABS 1-10
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L11 ANSWER 3 OF 4 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 2001:290537 BIOSIS
DOCUMENT NUMBER: PREV200100290537
TITLE: Mutagenesis of the varicella-zoster virus genome: Lessons learned.
AUTHOR(S): Cohen, J. I. [Reprint author]
CORPORATE SOURCE: Medical Virology Section, Laboratory of Clinical Investigation, National Institutes of Health, Bethesda, MD, 20892, USA
SOURCE: Archives of Virology Supplement, (2001) No. 17, pp. 91-97. print.
CODEN: AVISE9. ISSN: 0939-1983.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 20 Jun 2001
Last Updated on STN: 19 Feb 2002

L11 ANSWER 4 OF 4 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1996:21735 BIOSIS
DOCUMENT NUMBER: PREV199698593870
TITLE: Immunization with recombinant varicella-zoster virus expressing herpes simplex virus type 2 glycoprotein D reduces the severity of genital herpes in guinea pigs.
AUTHOR(S): Heineman, Thomas C.; Connelly, Beverly L.; Bourne, Nigel; Stanberry, Lawrence R.; Cohen, Jeffrey [Reprint author]
CORPORATE SOURCE: Medical Virol. Sect., Lab. Clinical Investigation, Natl. Inst. Allergy Infect. Dis., Bethesda, MD 20892, USA
SOURCE: Journal of Virology, (1995) Vol. 69, No. 12, pp. 8109-8113.
CODEN: JOVIAM. ISSN: 0022-538X.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 12 Jan 1996
Last Updated on STN: 12 Jan 1996

L11 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:402020 CAPLUS
DOCUMENT NUMBER: 133:39142
TITLE: A simplified and enhanced herpes simplex virus packaging system using Escherichia coli BAC plasmid and its use in gene therapy and vaccination
INVENTOR(S): Breakefield, Xandra O.; Chiocca, E. Antonio; Saeki, Yoshinaga; Fraefel, Cornel; Tobler, Kurt; Ackermann, Mathias; Suter, Mark; Adema, Gosse J.; Shortman, Ken
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 78 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2000034497	A2	20000615	WO 1999-US29120		19991209
WO 2000034497	A3	20001109			
W: CA, JP					
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
EP 1153136	A2	20011114	EP 1999-968472		19991209
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
US 6573090	B1	20030603	US 1999-458068		19991209
PRIORITY APPLN. INFO.:			US 1998-111630P	P	19981209
			US 1999-161374P	P	19991026
			WO 1999-US29120	W	19991209

L11 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN

L6 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:635386 CAPLUS
DOCUMENT NUMBER: 131:270945
TITLE: Recombinant herpesvirus of turkeys and uses thereof
INVENTOR(S): Cochran, Mark D.
PATENT ASSIGNEE(S): Syntro Corporation, USA
SOURCE: U.S., 105 pp., Cont.-in-part of U.S. Ser. No. 23,610.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 18
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5961982	A	19991005	US 1994-288065	19940809
US 4877737	A	19891031	US 1985-773430	19850906
US 5068192	A	19911126	US 1986-823102	19860127
WO 8701287	A1	19870312	WO 1986-US1804	19860903
W: AU, DK, JP				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
AU 8663717	A1	19870324	AU 1986-63717	19860903
EP 237546	A1	19870923	EP 1986-905609	19860903
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 63501122	T2	19880428	JP 1986-504917	19860903
EP 256092	A1	19880224	EP 1987-901222	19870123
EP 256092	B1	19980408		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
EP 794257	A1	19970910	EP 1997-103457	19870123
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
CA 1339468	A1	19970923	CA 1987-528117	19870126
IL 81398	A1	19970814	IL 1987-81398	19870127
FR 2601689	A1	19880122	FR 1987-10142	19870717
FR 2601689	B1	19921016		
US 5047237	A	19910910	US 1988-192866	19880511
US 5223424	A	19930629	US 1988-225032	19880727
EP 658623	A2	19950621	EP 1995-100565	19880727
EP 658623	A3	19950927		
R: BE, DE, FR, GB, IT, NL				
AU 9210266	A1	19920514	AU 1992-10266	19920115
AU 656553	B2	19950209		
US 5928648	A	19990727	US 1993-23610	19930226
US 5593873	A	19970114	US 1994-247475	19940523
US 5731188	A	19980324	US 1994-323531	19941014
US 5965138	A	19991012	US 1994-362240	19941222
US 5763269	A	19980609	US 1995-384476	19950201
US 5599544	A	19970204	US 1995-479650	19950607
CA 2196570	AA	19960222	CA 1995-2196570	19950809
WO 9605291	A1	19960222	WO 1995-US10245	19950809
W: AU, CA, JP, MX				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9534053	A1	19960307	AU 1995-34053	19950809
AU 711815	B2	19991021		
EP 776361	A1	19970604	EP 1995-930814	19950809
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 10506782	T2	19980707	JP 1995-507531	19950809
US 5853733	A	19981229	US 1996-663566	19960613
US 5804372	A	19980908	US 1996-674169	19960701
US 6183753	B1	20010206	US 1997-804372	19970221
US 6121043	A	20000919	US 1997-915520	19970815
US 6210961	B1	20010403	US 1997-912803	19970818
AU 750084	B2	20020711	AU 2000-13491	20000121
US 2002081316	A1	20020627	US 2001-881457	20010614

PRIORITY APPLN. INFO.: US 1985-773430 A2 19850906

US 1986-823102	A2	19860127
US 1986-887140	B2	19860717
US 1986-902877	B2	19860902
US 1986-933107	B1	19861120
US 1987-78519	B2	19870727
US 1988-225032	A2	19880727
US 1991-649380	B2	19910131
US 1991-696262	B1	19910419
US 1992-898087	B2	19920612
US 1992-914057	B2	19920713
US 1993-23610	A2	19930226
US 1985-773403	A2	19850906
US 1986-902887	A	19860902
WO 1986-US1804	A	19860903
EP 1987-901222	A3	19870123
US 1988-192866	A2	19880519
EP 1988-907889	A3	19880727
US 1991-732584	B1	19910718
US 1992-926784	B1	19920807
US 1993-37707	B1	19930325
WO 1993-US5681	A2	19930614
US 1993-117633	B1	19930907
US 1994-247475	A1	19940523
US 1994-288065	A1	19940809
US 1994-334428	A1	19941104
US 1994-362240	A	19941222
WO 1995-US10245	W	19950809
US 1996-663566	A2	19960613
US 1997-804372	A1	19970221
US 1999-426352	B2	19991025

AB The present invention provides a recombinant herpesvirus of turkeys designated S-HVT-050 (ATCC Accession Number VR 2400). A vaccine is provided which comprises an effective immunizing amount of S-HVT-050 and a suitable **carrier**. A method of immunizing a fowl against disease caused by Marek's disease virus and Newcastle disease virus is also provided which comprises administering to the fowl an effective immunizing dose of the vaccine of the present invention.